



GOVERNMENT SOCIAL SURVEY

Mobility and Reading Habits of the Blind

by
P. G. Gray
and
Jean E. Todd

*An inquiry made for the Ministry of Health, covering the
Registered Blind of England and Wales in 1965*



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SUMMARY

This report presents the findings of a survey commissioned by the Ministry of Health. The purpose of the inquiry was to find out, from people who are registered blind, the extent to which they manage to cope with two aspects of living which are made more difficult by gross sight deficiency, that is, mobility and reading. Background data such as this survey provides has two main uses. Firstly it gives a standard by which new and improved methods of mobility and reading can be measured, and secondly it shows whether and where there are areas of particular need.

Among the registered blind there is a great preponderance of very old people, for the great majority of whom blindness is a concomitant of old age. The needs of these people in terms of rehabilitation, retraining and welfare services are somewhat different from those people who were younger at the age of onset of blindness. Since the purpose of the inquiry was very much linked with the future training of blind people, it was agreed that the survey resources available should be put to the best use. Consequently a greater proportion of people were selected for interview from the age group under 65 than from the age group 65-79, and none were selected who were aged 80 years or more. Thus a random sample of registered blind people was designed such as to include approximately one in twenty of those aged 16-65, one in sixty of those aged 65-79 and no-one aged 80 years or more. Throughout the report the results are given separately for the two major age groups, and it must always be remembered that the survey did not cover those blind people aged 80 or more.

Government Social Survey interviewers obtained interviews with 90% of those selected in the age group 16-64 and 83% of those aged 65-79. The interviews were generally carried out in people's homes, except in a few cases where it was more convenient for the blind person to be interviewed at his place of work.

When examining the results it is of paramount importance to keep in mind that to be registered blind is not synonymous with being totally blind. One of the major classifications used throughout the survey report is one indicating the range of residual sight. This range varies from the individual who says that when standing on the edge of the pavement he would be able to see a cyclist go by on the other side of the road, to the person who says that when in a room, in the daytime, he would not be able to tell, by the light, where the windows were.

When considering mobility we have taken travelling without a sighted human as a definition of independent travel. We have called this, for the sake of brevity, "unguided travel". This term does not exclude the use of non-human aids to mobility such as Guide Dogs. (The number of Guide Dog owners is very small, 3% of those aged 16-64.)

Performance with regard to mobility was established by obtaining information about the journeys which had been made "beyond the house and garden" during the seven days prior to the interview. This information

was collected in great detail and was built up day by day to facilitate the process of reconstruction by the blind person.

The measure found to be most useful in analysing the variation in mobility among the registered blind was the proportion who, during a week, travelled on foot without a sighted person with them. The results quoted in the summary will refer only to the age group 16-64. The overall proportion who travelled on foot unguided during the week was 63%. The proportion was higher for men (69%) and lower for women (53%). Throughout the analysis of mobility we found that the performance of independent travel was at a lower level for women.

One of the largest contributing factors in the level of mobility achieved was, as might be expected, the amount of residual sight that the individual had. Of those people who said they could see a cyclist on the other side of the road, 85% of the men and 70% of the women had done some travelling unguided during the week. On the other hand, of those people who said they could not tell by the light where the windows were, 54% of the men and 25% of the women had travelled unguided in the week.

We examined the data with regard to both residual sight and whether the blind person, on his own assessment, had any additional disabilities which prevented him from getting about. Of those who could see a cyclist and who said they had no additional disabilities, 90% of the men and 84% of the women had travelled unguided. Of those who could not distinguish the windows and who said they had some other disability as well, only 37% of the men and 8% of the women had been out unguided during the week.

Section 8.2 "Residual Sight and the Problems of the Unguided Foot Traveller" describes in more detail some of the hazards which affect a blind person when travelling unguided. These are analysed with regard to residual sight and it is interesting to see which hazards result in most difficulty for the different sight groups. Also in this section an examination is made of the extent to which a blind person is aware of his physical environment.

It is clear from these results that even on a simple analysis of mobility there are many different levels of performance and that these are very closely related to some fairly basic characteristics of the blind population. Pursuing a policy of improving the independence of blind people thus necessitates the availability of a considerable variety of methods of training and rehabilitation.

The section of the report which deals with reading begins with an appraisal of the systems available for reading. Here again it must be remembered that there is a considerable variation of residual sight among those registered blind. Throughout the reading section the residual sight categories are defined by a print reading test that was conducted during the interview. The categories vary from those people who could not tell by the light where the windows were to those who could read the print test and said that they generally read ordinary print* (11%). Here as earlier the figures quoted will refer to the age group 16-64.

* Using visual aids and holding the test card in the most advantageous position.

We examined the amount of residual sight useful for reading in relation to whether blind people have sighted people read to them, whether they have the use of a Talking Book machine or whether they read Braille. The overall proportion of people who had a Talking Book machine was 24% and the overall proportion who said they could read a book in Braille was 40%. The proportion of registered blind who had someone sighted read to them and the proportion who had a Talking Book machine was higher among those with the least residual sight. For example, 5% of those who read the print test and said they generally read ordinary print for themselves said that someone reads the newspaper to them every day. The comparable proportion was 30% among people who said they could not distinguish by the light where the windows were.

One might have expected that the proportion of people who had learned to read Braille would also increase as one moved from those with the most residual sight to those with the least. This did not prove to be so. Of those aged 16-64, 33% said they had not learned Braille, 27% said they had learned but not become good enough at it to read a book and 40% said they had become good enough to read a book in Braille. Those with the most severe visual handicap contained less people who had never learned Braille (16%) but the other residual sight categories were very similar to each other.

When the data about learning to read Braille was examined with regard to age at onset of blindness, irrespective of the degree of residual vision, it was found that there was a very strong relationship with learning Braille. Of those people who had been blind from birth, 12% had never learned Braille, whereas among those aged 60-64 when they became blind, 87% had never learned Braille. It is of interest to comment on the proportions in the middle age ranges; 35% of those blind in their thirties, 46% of those blind in their forties and 65% blind in their fifties had never learned Braille.

Not only is there a large and varying proportion of people who never learned Braille but there is also a large and varying proportion who, although they learned Braille, said they did not become good enough to read a book. As a result the proportion of people saying they had become good enough at Braille to read a book fell from 72% of those blind from birth to 3% of those aged 60-64 when they became blind. For those who became blind in early adult and middle adult life the proportion saying they were good enough at Braille to read a book ranged from 48% of those blind in their twenties to 20% of those blind in their forties.

During the interview an embossed type reading test was carried out among those people who said they were able to read a book in embossed type. The form of embossed type most usually read is contracted Braille. From this test reading rates in words per minute were established. The rates of those who managed to complete the contracted Braille passage varied from less than 20 words a minute to 200 or more words per minute. It is of interest to compare this with the speed of a BBC newscaster which is about 150 words per minute, reading aloud. Over a third of those who completed the contracted Braille test read at less than 50 words per minute.

On examination of whether or not the speed of reading Braille was associated with where the person had been taught Braille, it was found

that, of those who read contracted Braille at less than 60 words per minute, 36% had been taught Braille at school, whereas among those who read at 100 words a minute or more, 92% had been taught Braille at school.

It was found that people who had a Talking Book machine were "reading" at a faster rate than those who read Braille books; 37% of those who had Talking Book machines read three or more books a month, whereas only 15% of Braille readers, who were members of The National Library, achieved this rate of book reading. We asked those people who were able to read embossed type and who also had a Talking Book machine which they would prefer if a book they wanted to read was available in Braille, in Moon and as a Talking Book; 83% said they would prefer the Talking Book version.

In the field of reading there are many different levels of need and these can be satisfied by systems of varying complexity. The results of the survey suggest that people find it very difficult to learn Braille but easy to listen to Talking Books. There are some areas of reading for which an individual technique such as Braille is necessary. There are others for which a tape recording would seem to suffice. As with mobility, any improvements of the reading facilities for blind people in general, depends on the development of varied training and equipment to satisfy the varying needs.

ACKNOWLEDGEMENTS

We would like to thank Dr. J. A. Leonard for his help throughout all stages of this inquiry. We would also like to thank the organisations providing services for the blind, who helped us at the planning stages. Finally we would like to thank the blind people in our sample who patiently answered our questions and thus made the inquiry possible.

PART I—INTRODUCTION TO THE SURVEY DATA

1.0 BACKGROUND TO THE INQUIRY

This inquiry was carried out by the Government Social Survey for the Ministry of Health on a sample of registered blind people in England and Wales. The fieldwork was done in the autumn of 1965 and the first results* became available in the summer of 1966.

A considerable amount of time, effort and money is currently being spent on research in the field of sensory aids for the blind. Scientists and technologists are involved in inventing and developing new scientific aids to increase the independence of blind people, with respect to both mobility and reading. Although such research is aimed at increasing the independence of blind people no information was available on how independent blind people are now, what methods they use either for getting about or for reading, or what levels of performance they achieve. It was therefore suggested that the Government Social Survey should carry out a survey of registered blind people to provide this information.

The purpose of the inquiry was thus to investigate how blind people manage to get about, what methods they use and how successful they are, and also how they obtain information about material normally available in printed form, and how successful the methods of doing this prove to be.

In this country there is a Register of the Blind with national coverage. Registration is voluntary and involves examination by an ophthalmologist who certifies whether the person's sight is sufficiently impaired to come within the range of what is registrable. To be registered blind is not synonymous with being totally blind. There are about 100,000 registered blind in England and Wales but only about 3% are totally blind. The others have varying amounts of residual vision up to the level of severe visual handicap which forms the limit of what is registrable. This limit is, of course, a very complex thing to define but a very general approximation is that a person is probably registrable if he cannot see at 3 metres what someone with normal vision is able to see at 60 metres. There are, however, many complex variations accompanying severe visual impairment which are taken into account. This generalisation is only given as a broad indication of the level of impairment that is registrable and to emphasise that to be registered blind does not necessarily mean that a person cannot see anything at all.

Since registration is voluntary it is probable that the Register of the Blind does not include all the people in England and Wales who could qualify.

*(i) "A Survey of the Mobility and Reading Habits of the Registered Blind in England and Wales"—Proceedings of the International Conference on Sensory Devices for the Blind, St. Dunstons.

(ii) "The Reading Habits and Mobility Patterns of the Blind"—British Association for the Advancement of Science, Nottingham, 1966.

There are, however, considerable social and financial advantages to being registered which, it is felt, are a very strong incentive to registration.

There are, as mentioned above, about 100,000 registered blind in England and Wales. About a third of these are 80 years old or more, another third are between 65 and 79 years old and the remaining third are under 65 years old. There is thus a great preponderance of old people on the Register of the Blind, blindness being, in many cases, a concomitant of old age. Below we illustrate the difference between the age distribution of the registered blind of England and Wales and the age distribution of the general population.

TABLE 1.0
Age Distribution of the Registered Blind of England and Wales
Compared with the Age Distribution of the General Population

Age	Registered Blind (Age at 31st Dec. 1964)	Population of England and Wales (1961 Census)
	%	%
Up to 15	2.3	24.4
16-20	1.0	6.7
21-29	1.9	11.2
30-39	3.3	13.5
40-49	6.0	13.6
50-59	10.0	13.4
60-64	7.2	5.3
65-69	9.3	4.3
70-79	26.3	5.7
80-89	26.8	1.8
90 or more	5.9	0.1
	100.0	100.0
Base	98,512	46,104,548

Although the blind population is, on the whole, rather old it was decided that the resources available could most profitably be concentrated on the younger section of the blind population. The 80 year-olds were not likely to provide much useful information on reading and mobility and were very unlikely to be potential users of any new methods introduced. Consequently the sample we selected for this inquiry had a cut off point at 80 years old. In addition to this a smaller proportion of people in the age range 65-79 were selected than in the group under 65 years old. This difference in proportions was decided on in order, again, to concentrate resources in the age group which would have the greatest interest in mobility and reading, and the greatest potential for learning new methods. From the under 65's we excluded those still at school or under school age since we felt that this group is best studied through the schools. In addition we excluded from both age groups people who were classified by the local authority as deaf without speech, deaf with speech, mentally ill, or mentally subnormal, as it would have been impossible to conduct an interview in these cases.

It must be stressed, therefore, that the results of the interview inquiry which are presented here refer only to the two age groups 16-64 and 65-79. They do not refer to the registered blind population as a whole for

no attempt was made to collect information about those people who were 80 years old or more or those at school.

A fuller discussion of the methods used, the sample design, and the details of the response obtained will be found in Section 2.0 Methodology.

2.0 METHODOLOGY

2.1 AVAILABLE STATISTICS

The Ministry of Health obtains, annually, statistics of the Registered Blind in England and Wales. Registers of the Blind are kept by local welfare authorities as part of their statutory duties and the statistics are obtained from the figures of each local authority which are first cumulated to obtain totals for the Regional Associations and then again to obtain national figures. These national statistics which are all broken down by Regional Association and by sex cover the following topics; the distribution of age at the end of each year: the age at the onset of blindness: the educational status of those under 16: the education, training and employment of those over 16: the employment or training position of those who have left school during the year: the occupation of employed persons: the distribution of physically defective, mentally subnormal and mentally ill: residential accommodation: the age distribution of new cases registered during the year: and the distribution of age of onset of blindness of new cases registered during the year.

2.2 MAXIMUM USE OF RESOURCES

These national statistics show the very skewed age distribution of the blind population to which we have already referred in the introduction, and as we have briefly mentioned earlier it was decided that in order to maximise the use of available resources we would have to exclude blind persons over a certain age. The purpose of the inquiry was to find out about the mobility patterns and reading habits of blind people with a view to the potential demand for new scientific aids. It seemed unlikely that the extremely elderly would provide very much useful information or be very concerned about possible new developments in this field. It was therefore decided not to include in the interview sample any persons 80 years old or more. On similar grounds it was felt that those people aged 65-79 would not have as much interest in or as much potential as future users of new methods of getting about or reading as those people under 65. Nevertheless the group aged 65-79 years form a large proportion of the total population and we were interested in establishing what their level of performance was with regard to mobility and reading. Consequently it was decided that to obtain the best allocation of resources a smaller proportion of people from the age group 65-79 years should be selected for interview than the proportion selected from the group who were under 65 years old.

2.3 THE REGISTER OF THE BLIND AS A SAMPLING FRAME

The incidence of blindness in England and Wales is of the order of 1 in 500. With a special group as small as this the problem of selecting a sample would be very great indeed if there was not an adequate list of blind persons available to form a frame. Normally no perfect sampling frame exists for a special group but often lists for other purposes do exist which can be made available and have sufficient coverage to be useful. The Register of the

Blind, although it has some imperfections as a sampling frame, provided essential data without which the survey could never have been started.

Since registration is voluntary it is unlikely that the register includes all the people in England and Wales who could qualify for registration. However, the social and financial advantages of being registered are considerable and thus there is a great incentive to become registered. The only group which we feel may be under-represented on the register is that of the very elderly for whom blindness is a concomitant of old age and probably accompanied by other characteristics of extreme old age; for here, the advantages of being registered are somewhat reduced and the possibility of obtaining ophthalmic examination rather restricted. For this inquiry, however, any omissions on the register at that end of the age scale were of relatively little consequence since it was not intended to interview the over 80's.

In some circumstances it was possible for a blind person to appear on the records of more than one local authority. For instance if a person's permanent address was within one authority but the blind person was employed in a sheltered workshop, or provided with residential care in another local authority area, he would remain registered with the first but would obtain the welfare services of the second. In such circumstances the second authority would have the individual categorised as a "C" case and the records would show this clearly. It was therefore possible to select a sample with each individual having only one chance of being selected.

The other main concern in using the register as a sampling frame was how up to date it was. With an age distribution such as that of the blind population the number of deaths occurring must be quite great and we were not sure how often we would find that the record cards for people who had died were still in the system. However since the cards were, in general, used as a source of information for the annual returns it was unlikely that they would be very out of date. The sample was selected in July and August and the interviewing was done between October and December 1965; 3.3% of those selected for interview in the age group 65-79 were found to have died. Although the time lapse between the sample selection and the interview was three months or more it is possible that some of these deaths had occurred before the sampling was done but were included because the records were not completely up to date.

Despite these minor imperfections the Register of the Blind was for the most part in a very usable form for a sampling frame. The fact that annual returns are made meant that all the local authorities had certain standard information available and most of them kept it on the same type of card index system. Since the records were kept at the local authority level the sampling was done at the local authority level. Although this involved a great deal of travelling for those who did the sampling the system had its advantages in that the staff at the local authorities were very helpful in answering any queries which arose.

2.4 CONFIDENTIALITY OF THE REGISTER

Since registration is voluntary the local authorities undertake to maintain the confidentiality of the names on the Register. They disclose the names only to those who are working on behalf of the welfare of blind persons. Each person selected was individually approached to obtain his permission

before any contact was made by our interviewers. The size of the sample to be interviewed was about 1,700. Meeting this confidentiality condition for such a number of people was quite a large undertaking and would have been difficult but for the co-operation of the local authorities.

Section 2.8 deals with non-response and gives a detailed breakdown of the reasons for non-response. It is probable that the overall response rate would have been higher had it not been necessary to obtain individual permission first.

2.5 THE SAMPLE DESIGN

The sample design for this inquiry involved two stages. The first stage units were local authority areas and the second stage units were the individuals on the register. Thirty first stage units were selected with probability proportionate to the registered blind population at 31st December 1963 from a list stratified by standard region and within standard region by county borough and county. From each of the first stage units the individuals were selected with probability inversely proportionate to the number of registered blind in that first stage unit. This design results in approximately equal numbers being selected in each of the first stage units and each person on the register having an equal chance of selection.

The Initial Sample:— As we have said the register was kept by each local authority, many of whom used the same card index system. The cards are kept in alphabetical order and therefore a straightforward systematic sample was taken through the register in each of our 30 first stage units. It was not until later that any deletions were made on account of age. To obtain a sample of the required size for the age groups with which we were concerned it was necessary to select rather more than 100 individuals in each of the 30 areas. The information on the index cards which was in a form ready to be used for the annual returns was recorded for each of the selected persons. We thus obtained basic information about a complete sample of blind people.

The classification data recorded comprised much of the same information gathered annually by the Ministry of Health. We show below how the distribution of the national figures compare with the initial sample with respect to sex, age, and age at onset of blindness. In the national statistics age relates to age at December 31st 1964 and in the sample age is taken as at September 1st 1965.

The age grouping which is generally used in the national figures is not exactly the same as that generally used for the survey data. The national figures give age groups defined as, 16-20, 21-29, 30-39, We prefer to keep the ten year age groups consistent and therefore present the survey material in age groups of 16-19, 20-29, 30-39, This section is the only point at which we require to present the national figures and survey figures side by side, and for the sake of convenience we have amalgamated age groups so as to avoid a split at 20 years.

The tables below show that the distribution of sex, age, and age at onset of blindness is practically identical for the initial sample and for the national figures.

TABLE 2.1
Distribution of Sex for the Initial Sample and National Statistics

<i>Sex</i>	Initial Sample	National Statistics Dec. 1964
	%	%
Male	41	40
Female	59	60
	<hr/> 100	<hr/> 100
Base	4,700	98,512

TABLE 2.2
Distribution of Age for the Initial Sample and National Statistics

<i>Age</i>	Initial Sample	National Statistics Dec. 1964
	%	%
Up to 29	5	5
30-39	3	3
40-49	6	6
50-59	10	10
60-69	17	16
70-79	26	27
80-89	26	27
90 or more	6	6
No answer	1	—
	<hr/> 100	<hr/> 100
Base	4,700	98,512

TABLE 2.3
Distribution of Age at Onset of Blindness for the Initial Sample and National Statistics

<i>Age at Onset of Blindness*</i>	Initial Sample	National Statistics Dec. 1964
	%	%
Up to 15	15	15
16-29	6	6
30-39	5	6
40-49	8	8
50-59	11	11
60-69	16	16
70-79	22	22
80-89	13	13
90 or more	1	1
No answer	3	2
	<hr/> 100	<hr/> 100
Base	4,700	98,512

* Age of onset as stated on records.

Sample Selected for Interview: The selection for the sample to be interviewed was made centrally in our sampling department. Firstly the sampling forms were divided into age groups as follows

- (i) under 65 years
- (ii) 65-79 years
- (iii) 80 years or more.

Age, for this purpose, was taken to be age on September 1st 1965. The third group, the 80's and over, did not enter into the interview section of the inquiry at all. From the first two groups all people who were classified by the local authority as mentally subnormal, mentally ill, deaf without speech or deaf with speech were excluded, since to interview these people would have been very difficult. From the first group we also excluded those who were still at school or under school age. It was felt that it would be better to study the mobility and reading habits of these people through the school system. For ease of reference we call this group the 16-64 age group.

In order to concentrate our resources on those aged 16-64 years we took a sub-sample only of those aged 65-79 selecting 1 in 3 at random for interview. From the 4,700 initial sample we thus selected for interview 1,174 people in the age group 16-64 and 515 people in the age group 65-79 (See Figure 2.4).

After the fieldwork had finished it was discovered that in one of the thirty first stage units the rejection process had been incorrectly carried out. By mistake 1 in 3 of the 16-64's had been interviewed and all of the 65-79's. To correct this the interviews obtained for the 16-64's were triplicated and and of those for the 65-79's two-thirds were rejected at random.

2.6 DESIGN OF THE QUESTIONNAIRE

The design of the questionnaire naturally fell into two sections, one dealing with mobility and one with reading. In addition to the sections about mobility and reading there were of course some general questions covering background information and classification data, for example age now, age at onset of blindness, whether educated at a school for blind children, whether employed and how much residual vision the person had. One of the most important parts of this classification data was that related to the amount of residual sight, since the amount a person could see was likely to have a great influence on his mobility and reading habits. A further discussion of classifying residual sight will be found in sections 3.4 and 3.5.

We wished to establish the actual level of performance of the individuals we interviewed with regard to mobility and reading and then to augment this information with data regarding the person's attitudes and opinions. Measuring the level of performance is a difficult matter when one only has the interview situation in which to do it.

With regard to mobility one would, with a sighted group, ask the informant to keep a record for a certain length of time of all the occasions he goes out and the lengths and purposes of the journeys etc. With a blind population this was not practicable. Nevertheless we needed to know the pattern of journeys made, so a question was designed where the interviewer, starting with "yesterday", asked the informant to recall all the journeys he made beyond the house and garden. She recorded for each journey the main purpose of the journey, the mode of transport used, the time spent on foot if any, and the time spent on foot unguided, if any. When the interviewer had obtained the preceding day's journeys she worked backwards day by day over a week. We used time as a measure of journey length rather than distance because it was felt that these informants, as with the sighted population, would have more idea of the time spent travelling than

the distance covered. Information obtained retrospectively is, of course, very dependent on the memory factor, but to remember a week's journeys is not so difficult to do when the interviewer helps by building up from day to day. It was felt that in this survey, since the people in our sample would be much more used to relying on memory than a general population sample, obtaining last week's journeys from memory would be sufficiently reliable. It was necessary to cover a complete week because of the different pattern of behaviour between mid-week and the weekend. Although this made the question rather long there were very few cases where the informant was unable or unwilling to answer it completely.

The question covering the journeys made last week was the first in the mobility section. By the time the informant had finished answering it he had been thinking about mobility in some detail for some time. He was thus in a better position to start answering more general questions about mobility. By ordering the questions in this way we hoped to improve the quality of the data we obtained about the opinions, attitudes and more general questions about mobility.

The problem of obtaining a measure of the level of performance in reading within an interview situation involved rather different problems from those which occurred with mobility. Early on in the interview we did a very short print reading test but this was in order to establish the amount of residual sight that the person had and not to test the performance at reading. Our measurement of performance in reading was to be in terms of embossed types, Braille and Moon. We wanted to obtain a measure of reading rate in words per minute for people reading embossed type, for although some speeds had been recorded for some very good readers e.g. in competitions, the distribution of reading times was unknown, as was the speed of the slowest readers who still persevered. The first problem therefore was to design a reading test which would give us the information we required and which would fit into an interview which covered several topics besides this test. Another problem was that reading tests are very often conducted under more or less standardised conditions; in this case however, the test was to be carried out as a part of an interview in people's homes.

There were certain requirements which the passage to be used for the test needed to fulfill; it needed to be sufficiently simple for anyone who could read to be able to understand; it needed to be sufficiently long to enable us to time it for the quickest readers, but sufficiently short that the slow readers could manage to get through it; at the same time it needed to maintain the interest of young and old, male and female. A passage of 225 words was designed with these things in mind and then transcribed into contracted Braille, uncontracted Braille and Moon. The interviewers timed the reading with stop watches and then asked a few very simple questions to establish if the passage had been understood at all.

Unlike the mobility section the measure of the level of performance in reading came at the end of the section on reading. This was a more natural place than the beginning since a considerable amount of information was required about reading before the interviewer could establish which of the informants were eligible for an embossed type~reading test. It was also best

placed at the end since the interview was quite a long one and to have attempted to conduct both the travelling question and a reading test in the middle of the interview might well have affected the response on later questions.

The recording of last week's travelling and the embossed type reading test were the centre questions of the mobility and reading sections of the questionnaire (see the Questionnaire in the appendix).

A pilot run on the whole scheme was conducted before the main inquiry was launched. This enabled us to test out whether the load of the questionnaire was too great. As a result some minor adjustments were made to individual questions before the main inquiry began.

2.7 PROCESSING THE DATA

The fieldwork was finished in December 1965. The schedules were then checked and coded. This coding process was completed by the end of February. The information was then transferred to punch cards. After some initial editing on conventional card sorting equipment the cards were read onto magnetic tape. When further editing had been completed the Social Survey standard programme was used to obtain computer tables. The first tables became available in the middle of April 1966.

2.8 NON-RESPONSE

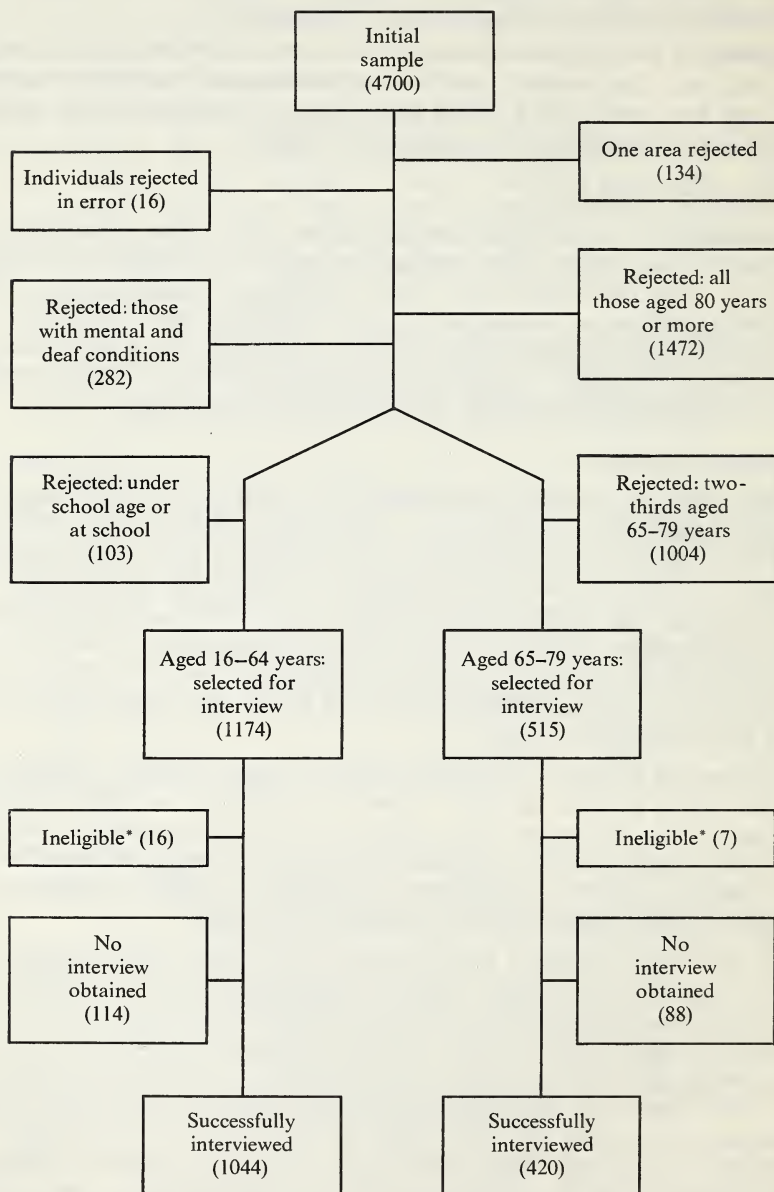
The sample, as was discussed earlier, was made up of 30 first stage units of local authorities. It was through these thirty local authorities that the individuals selected for interview were contacted and their permission obtained. There were two practical ways of conducting this operation (i) a letter could be sent by the local authority to the selected individuals giving a brief explanation of the survey and informing them that a Social Survey interviewer would be calling within the next week or two or (ii) the home teachers could visit the individuals and ask permission directly and then let Social Survey know the result.

Eighteen of the local authorities chose to send a letter, 7 preferred to use their home teacher service, 2 used a combination of both systems, in one case we do not know which method was used, in another case Social Survey circulated a letter on behalf of the local authority and in a third the local authority could not undertake notification because of other work in hand but took the responsibility for letting us go ahead.

In one of the eighteen areas where a letter was circulated the local authority, in an effort to help, enclosed an addressed card to be returned to the local authority if the person did not wish to co-operate. The result was that about a third of the people in this area refused to co-operate. This was so exceptionally high (the other areas having an overall average refusal rate of 4%) that it was decided to exclude this area from the sample. We had no reason to feel that the area itself was particularly different from elsewhere but it was very likely that those who did co-operate were rather different from those who did not, and to have included them in the analysis would have introduced more bias than by excluding the area completely.

The unfortunate procedure adopted by this particular local authority occurred through someone genuinely trying to be helpful but not appreciat-

Figure 2.4
Breakdown of the Initial Sample to the Interview Sample,
Showing Whether an Interview Was Obtained



*These cases should have been excluded from the interview sample for reasons of age, still at school, mental disorders or deafness with or without speech.

ing the effect of inviting non-co-operation. This is precisely the field in which the Government Social Survey is experienced. If it had not been necessary to contact all the individuals beforehand, through the local authorities, this would not have happened.

We show in Figure 2.4 how the sample to be interviewed was selected from the initial sample and whether or not an interview was obtained.

Since there was a variable sampling fraction for the two age groups 16-64 and 65-79 the figures have to be reweighted before they can be added together to give an overall response figure. We obtained interviews with 90% of those selected for interview and eligible and aged 16-64, and with 83% of those selected for interview and eligible and aged 65-79. When weighted together this gives an overall rate of response of 86%. Below we show in more detail the reasons given for not obtaining interviews.

TABLE 2.5
Reasons Given for Not Obtaining an Interview

<i>Reasons for Non-response</i>	Aged 16-64	Aged 65-79	Rewighted Aged 16-79
	%	%	%
All types of refusals	3.6	4.9	4.4
Health reasons	3.2	7.3	5.5
Dead	0.6	3.3	2.2
Moved or away	1.3	1.6	1.5
No contact made	0.5	0.2	0.3
Other reasons	0.6	—	0.3
	9.8	17.3	14.2
All non-response	90.2	82.7	85.8
Interviewed	100.0	100.0	100.0
Ineligible	16	7	—
Selected for Interview	1,174	515	—

In Table 2.5 the reasons for the non-response are shown for the two age groups separately and also weighted together to give an overall figure. The biggest contribution to non-response came from those who were unable to be interviewed for reasons of health and from those who declined to take part. As might be expected, reasons of health and death made a larger contribution among those aged 65-79 than those aged 16-64. The older group also had a higher proportion of refusals.

As we have said earlier approval was obtained before any approach was made to interview. There were two main methods used for doing this, one was that a letter was sent by the local authority to the individual explaining that a survey was being done, that participation was voluntary and that the interview would be confidential. The other main method used was for home teachers to visit the people selected for interview and explain about the survey. In a few areas a mixture of methods was used or some other arrangement was made.

We examined the level of response in areas notified by letter compared with those areas in which contact was made by the home teacher. For the age group 16-64 the proportion of those eligible who were actually interviewed was 91% for areas notified by letter and 86% for areas contacted by the home teacher. For those aged 65-79 the response rate was 84% for areas notified by letter, compared with 78% for areas contacted by the home teachers. The component of non-response in which this difference was most noticeable was that of refusals. For the younger group the rate of refusal was 3% in areas notified by letter, 5% in those contacted by the home teacher, for the older group the proportion was 3% and 9% respectively.

The Government Social Survey has considerable experience in launching and running national surveys. When our trained interviewers approach people selected in our samples to obtain their co-operation for an enquiry, they are able to explain the purpose of the inquiry and to deal with any misconceptions or misgivings about the interview. We find that this personal approach from the interviewer is generally more successful than a letter or an approach made by another body. Had it not been felt necessary for us to obtain individual permission by other methods before our interviewers made their approach we feel that we would have achieved a response rate at least as high as that achieved in the areas notified by letter and possibly even higher.

2.9 EFFECT OF NON-RESPONSE

We examined some population characteristics for the group eligible for interview and the group actually interviewed to see whether non-response introduced any bias into the results. For this purpose we examined sex, age and age at onset of blindness.

There was practically no difference between those selected for and eligible for interview and those with whom interviews were obtained with respect to sex, age, and age at onset of blindness. The only instance where there was any difference was for the older group where the proportion of those aged 75-79 who were interviewed was slightly lower than the proportion eligible for interview.

2.10 MAKING ESTIMATES FROM THE SURVEY DATA

It is important to keep in mind that throughout this inquiry the blind people aged 80 years or more were excluded, as were those still at school and under school age. It is never possible, therefore, to apply the results of the survey to the whole blind population but only to those sections of the population which came into the interview sample.

The initial sample was made up of 4,700 out of 98,512 registered blind. With the data given in figure 2.4 it is possible to estimate the total blind population represented by the two parts of our interviewed sample. For the group eligible for interview and aged 16-64 100% represents a population of about 24,000 and for the group eligible for interview and aged 65-79 100% represents about 32,000 blind people. These two figures do not, of course, make up the total blind population (98,512) because of the exclusion of the very old and those at school, under school age and those with mental disorders and gross hearing deficiencies.

TABLE 2.6

Distribution of Sex for those Eligible for Interview and for Those Successfully Interviewed

Sex	Aged 16-64		Aged 65-79	
	Eligible for interview	Successfully interviewed	Eligible for interview	Successfully interviewed
	%	%	%	%
Male	58	58	39	40
Female	42	42	61	60
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
Base	1,158	1,044	508	420

TABLE 2.7

Distribution of Age for Those Eligible for Interview and for Those Successfully Interviewed

Age	Aged 16-64	
	Eligible for interview	Successfully interviewed
	%	%
16-19	2	2
20-29	6	6
30-39	11	11
40-49	21	22
50-59	34	33
60-64	26	26
	<u>100</u>	<u>100</u>
Base	1,158	1,044

Age	Aged 65-79	
	Eligible for interview	Successfully interviewed
	%	%
65-69	28	30
70-74	34	34
75-79	38	36
	<u>100</u>	<u>100</u>
Base	508	420

TABLE 2.8

Distribution of Age at Onset of Blindness for Those Eligible for Interview and Those Successfully Interviewed

Age at Onset of Blindness*	Aged 16-64	
	Eligible for interview	Successfully interviewed
	%	%
At birth	20	19
01-19	18	18
20-29	13	13
30-39	13	13
40-49	16	17
50-59	17	17
60-64	3	3
	<u>100</u>	<u>100</u>
Base	1,158	1,044

Age at Onset of Blindness*	Aged 65-79	
	Eligible for interview	Successfully interviewed
	%	%
At birth	2	2
01-19	3	4
20-29	5	5
30-39	4	4
40-49	7	9
50-59	17	18
60-64	17	16
65-69	19	19
70-74	17	14
75-79	9	9
	<u>100</u>	<u>100</u>
Base	508	420

* Age at onset as stated on records.

Thus the results which follow are based on samples of size 1,044 and 420 persons for the age groups 16-64 and 65-79 respectively and represent a population of about 24,000 in the younger age range and about 32,000 persons in the older age range.

3.0 MAIN CHARACTERISTICS USED IN THE ANALYSIS

3.1 AGE NOW

As was discussed in Section 2.5 the sample design was such that the blind population was divided into three groups (i) up to 64 years (ii) 65-79 years and (iii) 80 years or more. A different proportion was then selected from the age groups. The oldest group was not included at all since it was felt that not much useful information could be obtained from people of this age, with regard to mobility and reading. Those who were still at school or under school age were excluded from the youngest age group and for convenience we refer to this as the 16-64 age group. A higher proportion of people were selected from the 16-64 age group than the 65-79s since it was felt that more information would be gained about mobility and reading from the younger group. Consequently the data for the age groups 16-64 and 65-79 are not additive without reweighting. Throughout this report the data will be presented for the two age groups separately, whereupon no reweighting is required. It does not seem, to us, to be of any advantage to amalgamate the groups when no data is available for the 80 year olds and over and thus no figures can be given for the whole population. With the data for the two age groups always presented separately we hope we shall forestall anyone applying the figures to the total registered blind population. Anyone wanting to make estimates should use the figures suggested in Section 2.10.

The age of the informant at September 1st 1965 was calculated from the date of birth obtained from the Register of the Blind.

TABLE 3.1
Age Distribution for the Sample of Interviewed Registered Blind

<i>Age Now</i>	<i>Aged 16-64</i>	<i>Age Now</i>	<i>Aged 65-79</i>
	%		%
16-19	2	65-69	30
20-29	6	70-74	34
30-39	11	75-79	36
40-49	22		100
50-59	33		
60-64	26		
	100		
Base	1,044	Base	420

3.2 AGE AT ONSET OF BLINDNESS

There were two sources available for this information, the Register of the Blind and the informant's reply to an interview question. It was necessary to ask the question in the interview since some later questions were dependent on the age at which the person went blind. We examined the level of agreement between the two sets of data and although there were some

discrepancies, the data agreed sufficiently well within the groups we were to use. We have used the age at onset given in the interview when analysing the interview material, in order to maintain consistency between the age at onset of blindness and the questions dependent on this age.

TABLE 3.2
Distribution of Age at Onset of Blindness for the
Sample of Interviewed Registered Blind

<i>Age at Onset of Blindness</i>	Aged 16-64	Aged 65-79
	%	%
Birth	20	3
Up to 19	19	6
20-29	13	4
30-39	13	4
40-49	16	10
50-59	16	19
60-64	3	14
65-69	—	19
70-74	—	15
75-79	—	6
	100	100
Base	1,044	420

3.3 SEX

Table 3.3 shows the sex distribution of those interviewed. In the younger age group there is a predominance of males, in the older age group a predominance of females.

TABLE 3.3
Distribution of Sex for the Sample of
Interview Registered Blind

<i>Sex</i>	Aged 16-64	Aged 65-79
	%	%
Male	58	40
Female	42	60
	100	100
Base	1,044	420

3.4 RESIDUAL SIGHT USEFUL FOR MOBILITY

Obviously any study which has to try and assess the mobility of blind people must take into account how much useful residual sight each blind person has. The amount of residual sight varies considerably between different people and so we needed to obtain some measure of this. The only information about the amount of residual sight that is available on record, for the whole sample, is that obtained from the ophthalmic examination at the time of certification of blindness, but for a large proportion of the sample a considerable amount of time has elapsed since certification. Since we felt that there was a great likelihood that the degree of blindness might

change over time, we decided not to attempt to get registration data about degree of blindness. We needed to take into consideration the amount of residual sight that the person had, at the time of interview, since we were studying mobility at the time of interview. To organise a standardised test of sight during the interview would have been a very difficult and lengthy operation, and would have completely unbalanced the interview. We therefore relied on assessing the amount of residual sight from questions asked during the interview.

The first question relating to residual sight was “If you are in a room in the daytime can you tell, by the light, where the windows are, (and if so) can you see more than this?” This enabled us to classify people into three groups. Those who could see more than the windows were asked two further sets of questions, one set related to mobility and one related to reading. We feel that residual sight which was useful for mobility need not necessarily be useful for reading print and vice-versa. From these questions we obtained an extended classification of residual sight useful for mobility, and for residual sight useful for reading print (see Section 3.5).

The questions asked about sight useful for mobility were designed to conjure up a picture, in the person’s mind, of a well defined situation with which he would be familiar, and to which he would therefore know the answer. The question we asked was, “If you are standing at the edge of the pavement can you see a cyclist go by on the other side of the road? Could you see a car go by on the other side of the road? Could you see a bus go by on the other side of the road?” The three parts of this question were answered practically completely consistently i.e. people who said they could not see a car could not see a cyclist, and those who could see a cyclist could also see all other vehicles. Nearly all those who could see more than the windows could also see a bus on the other side of the road. We therefore dispensed with this sub-division and generated five groups of different residual sight useful for mobility. The distribution is given in Table 3.4.

TABLE 3.4
Survey Classification of Residual Sight Useful for Mobility

<i>Survey Classification of Residual Sight Useful for Mobility</i>	Aged 16-64	Aged 65-79
	%	%
Cannot see windows	26	19
Can see windows but no more	17	23
Can see more but cannot see car	14	17
Can see car but cannot see cyclist	15	18
Can see cyclist	28	23
	100	100
Base	1,044	420

We compared this distribution of residual sight with the distribution of degree of blindness given in “The Incidence and Causes of Blindness in England and Wales 1948-1962*”. In this report Table 6 shows the degree of blindness by age and sex for people becoming registered during the years

*The Incidence and Causes of Blindness in England and Wales 1948-62. Reports on Public Health and Medical Subjects No. 114. HMSO.

1955-60. This data refers to the degree of blindness at registration and could only be expected to agree with the above table if no change in the degree of blindness occurred over time. The definitions used for the classification of residual sight useful for mobility and the definitions of degree of blindness are necessarily different but the survey questions were designed so as to fit in broadly with the ophthalmic classification. On comparison we find that the overall distribution (all ages) for the degree of blindness among newly registered blind has a much smaller proportion with up to perception of light (13·8%) compared to the survey population of those who could not see windows (26% aged 16-64; 19% aged 65-79).

If any change in the degree of blindness takes place over time then this comparison is invalid, as is any generalisation from a sample of newly registered to the population of currently registered blind. We asked those interviewed whether they considered that their sight had changed since registration. Of those aged 16-64, 49% said their sight had got worse, 8% said their sight had got better and 43% said their sight had remained the same.

In order to make a valid comparison with the degree of blindness data we selected those people who had been recently registered, compared them with those from the survey who had been registered longer, and also compared the distribution of residual sight with that of the degree of blindness of the newly registered. This validation check was done just for those aged 16-64. To obtain a group from our own sample that was large enough, we selected those registered within the last two years.

TABLE 3.5
Comparison of Residual Sight Useful for Mobility and the Degree of Blindness for the Newly Registered

<i>Survey Classification of Residual Sight*</i>	Aged 16-64		
	Registered within the last two years	Registered for more than two years	All
	%	%	%
Cannot see windows	12	28	26
Can see windows but not cyclist	51	46	46
Can see cyclist	37	26	28
	<u>100</u>	<u>100</u>	<u>100</u>
Base	104	940	1,044

*This survey.

Aged 15-59	<i>Degree of Blindness at Registration†</i>
Newly Registered	
%	
16	
53	
31	Up to perception of light Hand movements up to 3/60 Snellen Better than 3/60 Snellen
<u>100</u>	
7,199	
	Base

†New registration statistics.

The distribution of residual sight for those registered within the last two years was very similar to that of the degree of blindness of new registrants aged 15-59, between 1955 and 1960. This validates the classification of residual sight derived from questions asked during the interview. Although the two sets of definitions are not identical the figures suggest that it is inaccurate to generalise from new registrations to all registered blind with regard to degree of blindness. One would expect that an ophthalmic examination of a random sample of the currently registered blind would have a considerably different distribution of the degree of blindness from the distribution relating to the newly registered.

3.5 RESIDUAL SIGHT USEFUL FOR READING

The classification of residual sight useful for reading print started from the same point as the classification with regard to mobility, that is whether or not the informant could see the windows. To all those informants who said they could see more than this we gave a very simple print reading test. The test consisted of two phrases on a card which measured 10" x 8". The first phrase was in 1/4" capital letters and the second was in 1/8" lower case type. The latter size is approximately equal to the size of print used in "large print books"* and we refer to it as large print. The informant was asked to use any aid to reading that he normally used and was allowed to hold the card in any position.

We wanted our classification of residual sight useful for reading to make as clear a differentiation as possible but not to result in some of our classifications including so few people as to make further detailed analysis difficult. We found, however, that there was a sufficient proportion of those who could see more than windows who could also read all or part of the large print test. We were thus able to use the more difficult print test as an indicator of residual sight useful for reading print. We subdivided those who could read the large print test into those who said that they normally do not read anything in ordinary print and those who said they do. The distribution is given below.

TABLE 3.6
Survey Classification of Residual Sight Useful for Reading Print

<i>Survey Classification of Residual Sight Useful for Reading Print</i>	Aged 16-64	Aged 65-79
	%	%
Cannot see windows	26	19
Can see windows but no more	17	23
Can see more but did not read large print test	33	42
Read large print test: —		
(i) but does not generally read ordinary print	13	9
(ii) and does generally read ordinary print	11	7
	100	100
Base	1,044	420

For those who could see more than windows we examine the relationship of the classification of sight useful for mobility and sight useful for reading print.

*Ulverscroft Large Print Books.

TABLE 3.7
The Relationship Between Sight Useful for Mobility and Sight Useful for Reading Print

<div style="text-align: center;"> <i>Sight Useful for Reading Print</i> / <i>Sight Useful for Mobility</i> </div>	Aged 16-64		
	Could not read sentence in large print	Could read large print but does not generally read ordinary print	Could read large print and does generally read ordinary print
	%	%	%
Can see more than windows but cannot see car	33	13	3
Can see car but cannot see cyclist	35	27	14
Can see cyclist	32	60	83
	100	100	100
Base	331	134	110

<div style="text-align: center;"> <i>Sight Useful for Reading Print</i> / <i>Sight Useful for Mobility</i> </div>	Aged 65-79		
	Could not read sentence in large print	Could read large print but does not generally read ordinary print	Could read large print and does generally read ordinary print
	%	%	%
Can see more than windows but cannot see car	37	21	13
Can see car but cannot see cyclist	33	32	17
Can see cyclist	30	47	70
	100	100	100
Base	156	38	30

Table 3.7 illustrates that although those who could read the large print test could, generally speaking, see a car (many of them also being able to see a cyclist) those who could not read the large print test showed much more variation in residual sight useful for mobility. It is of interest to see how similar the general distributions are for the two age groups, although the 65-79s show a somewhat reduced level of useful residual sight.

3.6 OTHER IMMOBILISING DISABILITIES

When examining whether a person who is registered blind gets out and about one must take into consideration any other health troubles in addition to blindness which may affect mobility. For our purposes we wanted to know about any fairly serious defects of a long term nature. We asked "Have you any disability, apart from your blindness, which prevents you from getting about?" If the answer was positive we asked what the defects were in order to ascertain whether the defects specified were of the same order of seriousness as we wished to use. On the whole we felt that they were. We give, in the following table, the proportion of those who had additional disabilities and also the distribution of the sort of additional

troubles which the informants said prevented them from getting about. The first part of the question, whether the informant considered he had any additional defects or not, will later be examined in relation to performance.

TABLE 3.8
Whether the Informant Felt that He Had Any Additional Disability
that Prevented Him from Getting About

<i>Whether the Informant Felt He Had Any Additional Disability</i>	Aged 16-64	Aged 65-79
	%	%
No disability other than blindness	69	45
Some other additional disability	31	55
	100	100
<i>Other Additional Disabilities:— (Some informants had more than one additional disability)</i>		
Arthritis; rheumatism	7%	14%
Injury or disease of arms, legs, feet	7%	14%
Spine and back trouble	4%	5%
Diabetes	6%	9%
Nerve disease, nerve trouble	3%	—
Headache, balance, dizziness, blackouts	3%	4%
Heart and blood troubles	4%	11%
Respiratory defects	3%	6%
Internal injuries and diseases	4%	6%
Other defects	1%	5%
Base	1,044	420

3.7 ABILITY TO WALK AT A BRISK PACE WHEN GUIDED

To obtain another estimate of fitness we asked each person for how long he would be prepared to walk, along a pavement, with a sighted friend, at a brisk pace. We were interested to examine the results of this question in relation to whether or not the person had any other disabilities besides blindness (section 3.6). We show below the distribution of the length of time the informants were prepared to walk at a brisk pace by whether they said they had any other disabilities.

TABLE 3.9
Willingness to Walk, with a Sighted Friend, at a Brisk Pace,
by Whether or not There is Any Additional Disability

<i>Length of Time for Which Would Walk With a Sighted Friend at a Brisk Pace</i>	Aged 16-64			Aged 65-79		
	Additional disability	No other disability	All	Additional disability	No other disability	All
	%	%	%	%	%	%
Not at all	56	9	23	82	40	63
As much as 5 mins.	10	2	4	4	4	4
15 mins.	8	6	7	6	11	8
30 mins.	11	18	16	5	16	10
60 mins.	15	65	50	3	29	15
	100	100	100	100	100	100
Base	326	718	1,044	230	190	420

The table shows that there is a very strong relationship for both age groups between any additional disabilities and the length of time the informant would walk at a brisk pace.

PART II—MOBILITY OF THE BLIND

4.0 MEASURING MOBILITY

4.1 DEFINING MOBILITY

Prior to this survey no information was available on the extent to which blind people travel around, or on how independent they are of other sighted people. This information is, however, fundamental if any accurate assessment is to be made of the potential demand for the different types of aids being developed, or if research is to be directed towards areas of particular need.

The problem which faced us was, therefore, to obtain information about the mobility patterns of the blind and establish what it is that makes a good blind traveller. Many of the specialists working in this field will have their own definitions of what they consider to be the level of performance required of a "good blind traveller", and these definitions will probably be related to the particular project the research worker is concerned with. When planning a national inquiry one is not concerned with special groups but with the population as a whole. In this situation it is not advisable to devise complicated definitions which are difficult to put into operation on a large scale, nor is it advisable to attempt refinements which involve only very small sub-groups. We therefore decided to begin with a very simple classification of mobility based on whether the person went out at all, whether any travelling was done on foot, and if so, whether any travelling was done on foot and not accompanied by a sighted person. From this initial classification further refinements could be developed where the data was sufficient.

4.2 MEASURING MOBILITY BY ASKING QUESTIONS

To obtain reliable data about the pattern of travelling one requires some kind of record to be made of all journeys occurring over a set period of time. In some inquiries the most efficient way of obtaining such data would be to ask a sample of people to keep a record book for a specified amount of time. With a sample of registered blind people this was not a practical proposition; the alternative was to design a question which built up a picture of all the travelling which had been done in the days before the interview. The question was designed to cover a period of a week. The interviewer started with "yesterday" and then built up a week's travelling by going over each preceding day until she had covered seven days. The information which we obtained was thus retrospective and therefore subject to memory difficulties. However, the process of building up from day to day helps the informants to remember what they did and we feel that the data we obtained is reliable.

The travelling which had been done was recorded in terms of journeys. For each journey details were recorded about the main purpose, whether any form of transport was used and the amount of time for the whole journey,

for any part done on foot and for any part done on foot unguided. A journey was defined as any travelling done beyond the house and garden. It was rather difficult to give a precise definition of a journey. On the whole when any travelling was done the part getting to the destination and the part getting home again would each be counted as a journey, but in some cases such division was impossible and where the travelling involved a round trip this was recorded as one journey (e.g. some shopping trips). This was not very important, however, since we only intended to analyse journeys in an aggregate form. The variable which was to be used for analysing travelling was the time spent doing it, not the number of journeys.

Time was used as a measure of journey length since it was felt that each individual would not know the distance very accurately but would have a reasonable idea of how long the journey took. For each person times were aggregated for all travelling and for travelling on foot and all travelling on foot unguided. Within the two types of foot travel times were also aggregated for the different purposes of travelling.

5.0 A PICTURE OF A WEEK'S TRAVELLING

5.1 THE LEVEL OF MOBILITY ACHIEVED

By obtaining information about each person's travelling day by day, for the week before the interview, we were able to build up a picture of the sort of travelling done by blind people. Table 5.1 shows the proportion of people who went out during the week, and gives a breakdown of those who did some travelling, indicating progressive degrees of independence. Throughout the survey "unguided" means without a human sighted person, thus a blind person with a guide dog is classified as "unguided". The figures are presented for males and females separately and for each age group as a whole. There is an appreciably higher level of independent mobility among the men than among the women, and the level is considerably lower for the 65-79 age group than for the 16-64s.

TABLE 5.1
The Level of Mobility Achieved During the Week Preceding the Interview

<i>Classification of the Level of Mobility Achieved During the Week Preceding the Interview</i>	Aged 16-64		
	Male	Female	Total
	%	%	%
Did not go out at all during the week	7	10	8
Went out, but no travelling on foot	5	7	6
Some travelling on foot, but none unguided*	19	30	23
Some travelling on foot, sometimes unguided*	69	53	63
	<hr/> 100	<hr/> 100	<hr/> 100
Base	602	442	1,044

<i>Classification of the Level of Mobility Achieved During the Week Preceding the Interview</i>	Aged 65-79		
	Male	Female	Total
	%	%	%
Did not go out at all during the week	15	28	23
Went out, but no travelling on foot	7	9	8
Some travelling on foot, but none unguided*	26	28	27
Some travelling on foot, sometimes unguided*	52	35	42
	<hr/> 100	<hr/> 100	<hr/> 100
base	166	254	420

*Throughout the survey "unguided" means without a human sighted person, thus a blind person with a guide dog is classified as "unguided".

Whichever week is selected for this type of measurement some people will find it to be an exceptional week for them personally, nevertheless accumulated with everyone else's travelling this gives a true picture of the amount of travelling done by blind people in one week.

At the end of the question about the travelling done in the previous seven days we asked each person whether this had been an unusual week. Three-quarters of those aged 16-64 said that the last week had been normal, 10% saying that last week they did more than usual, 15% saying that last week they travelled less than usual. For those aged 65-79 years 82% said that the previous week had been normal, 8% saying they had done more than usual, 10% saying they had travelled less than usual.

Experience suggests to us that in fact the group saying that they did less travelling than usual last week contains a proportion of people who believe that they get around rather more than they in fact do, and that the groups for whom travelling patterns were in fact different from normal were probably reasonable equally split between those who did more and those who did less than usual.

5.2 CHARACTERISTICS OF PEOPLE ACHIEVEING DIFFERENT LEVELS OF MOBILITY

In this section we examine some of the main characteristics for the different mobility groups. Table 5.2 shows the age distribution of the groups. For those aged 16-64 there is a strong association between age and the

TABLE 5.2
Age Distribution for the Different Levels of Mobility Achieved in the Week

Age Now	Aged 16-64				
	Level of Mobility Achieved in the Week				
	Did not go out at all during the week	Went out but no travelling on foot	Some travelling on foot but none unguided	Some travelling on foot, sometimes unguided	Total
	%	%	%	%	%
16-39	4	15	10	24	19
40-49	21	19	17	24	22
50-59	30	26	35	34	33
60-64	45	40	38	18	26
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
Base	80	62	240	649	1,044*

Age Now	Aged 65-79				
	Level of Mobility Achieved in the Week				
	Did not go out at all during the week	Went out but no travelling on foot	Some travelling on foot but none unguided	Some travelling on foot, sometimes unguided	Total
	%	%	%	%	%
65-69	18	27	37	34	30
70-74	31	27	38	34	34
75-79	51	46	25	32	36
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
Base	94	33	111	176	420*

* These totals include some cases for whom the mobility achieved was not known.

level of mobility achieved, the more independent the level of mobility achieved the greater is the proportion of young people. Four per cent of those who did not go out at all were under 40 years old, whereas 24% of those who went out on foot sometimes unguided were under 40 years old. Similarly with the proportion aged sixty or over this fell from 45% of those who did not go out in the week to 18% of those who went out unguided. There is a similar, but less strong, association with age among those aged 65-79.

We examine next what the level of additional disabilities is for the different levels of mobility achieved. Table 5.3 shows that whether the person has any additional disabilities other than blindness has a marked effect on whether or not he goes out on foot, but then little effect on whether he goes out unguided or otherwise. This variation exists in both of the age groups.

TABLE 5.3
Additional Disabilities for the Different Levels of Mobility
Achieved in the Week

<i>Whether Has Additional Disability</i>	Aged 16-64				
	Level of Mobility Achieved in the Week				
	Did not go out at all during the week	Went out but no travelling on foot	Some travelling unguided	Some travelling on foot, sometimes unguided	Total
	%	%	%	%	%
Has additional disability	66	69	30	23	31
Has not	34	31	70	77	69
	100	100	100	100	100
Base	80	62	240	649	1,044*

<i>Whether Has Additional Disability</i>	Aged 65-79				
	Level of Mobility Achieved in the Week				
	Did not go out at all during the week	Went out but no travelling on foot	Some travelling on foot but none unguided	Some travelling on foot, sometimes unguided	Total
	%	%	%	%	%
Has additional disability	78	73	45	45	55
Has not	22	27	55	55	45
	100	100	100	100	100
Base	94	33	111	176	420*

*These totals include some cases for whom the mobility achieved was not known.

The final characteristic examined with regard to the level of mobility is the amount of residual sight, in terms of whether or not the person could see the windows. The figures are given in Table 5.4 and show very interesting

variations. For those aged 16-64 there is virtually no difference between those who did not go out and those who went out but not on foot. There is however a very great variation, with the difference in residual sight, between those who went out on foot but not unguided and those who did some unguided travelling. Thus the amount of residual sight plays little part in whether people go out on foot but a very large part in whether they go out on foot unguided. The same pattern is evident among those in the age group 65-79.

TABLE 5.4
Residual Sight for the Different Levels of Mobility Achieved
in the Week

<i>Whether Person Can See Windows</i>	Aged 16-64				
	Level of Mobility Achieved in the Week				
	Did not go out at all during the week	Went out but no travelling on foot	Some travelling on foot, but none unguided	Some travelling on foot, sometimes unguided	Total
	%	%	%	%	%
Cannot see windows	35	37	43	17	26
Can see windows but no more	15	15	23	15	17
Can see more	50	48	34	68	57
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
Base	80	62	240	649	1,044*

<i>Whether Person Can See Windows</i>	Aged 65-79				
	Level of Mobility Achieved in the Week				
	Did not go out at all during the week	Went out but no travelling on foot	Some travelling on foot but none unguided	Some travelling on foot, sometimes unguided	Total
	%	%	%	%	%
Cannot see windows	25	27	24	11	19
Can see windows but no more	29	36	26	16	23
Can see more	46	37	50	73	58
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
Base	94	33	111	176	420*

*These totals include some cases for whom the mobility achieved was not known.

5.3 JOURNEYS DONE ON DIFFERENT DAYS OF THE WEEK

As discussed in Section 4.2 we have, where possible, used time rather than number of journeys for the analysis of the travelling data since journeys are very difficult to define. Some of the data is, however, only available in terms of journeys, and this is the case for travelling by day of the week

and also by whether transport was used. Table 5.5 shows the distribution of journeys on different days of the week. The figures are given for males and females separately. For those aged 16-64 men do slightly fewer journeys on Saturdays and Sundays than other days and women do less on Sundays. The distribution for the older age group is more erratic.

TABLE 5.5
Proportion of All Journeys Done on Different Days of the Week

<i>Day of the Week</i>	Proportion of All Journeys			
	Aged 16-64		Aged 65-79	
	Male	Female	Male	Female
	%	%	%	%
Monday	15	15	14	13
Tuesday	15	16	15	17
Wednesday	16	15	16	13
Thursday	15	14	14	15
Friday	15	14	15	13
Saturday	13	14	13	14
Sunday	11	12	13	15
	100	100	100	100
Proportion of All Journeys	66	34	49	51

In the next table we show what proportion of the sample did at least one journey on the different days of the week. The figures are given separately for males and females. For the age group 16-64 the highest proportion of people making no journeys on a particular day occurs on Sunday (43% for men; 53% for women). For the older age group there is less difference between the weekdays and the weekend.

TABLE 5.6
Proportion of Sample Who Did At Least One Journey On the Different Days of the Week

<i>Day of the Week</i>	Proportion Who Did At Least One Journey			
	Aged 16-64		Aged 65-79	
	Male	Female	Male	Female
Monday	77%	56%	52%	31%
Tuesday	77%	63%	54%	41%
Wednesday	78%	62%	60%	33%
Thursday	75%	58%	52%	39%
Friday	75%	58%	57%	34%
Saturday	71%	57%	52%	34%
Sunday	57%	47%	46%	34%
Base	602	442	166	254

5.4 FORMS OF TRANSPORT USED

Table 5.7 shows the proportion of journeys which involved foot travel alone and also the proportion of journeys involving some additional means of transport. Although some people used foot travel in conjunction with more than one other form of travel, the number of journeys involved was very small indeed (less than 1%).

TABLE 5.7
Proportion of All Journeys Which Involved Different
Forms of Transport

<i>Means of Transport</i>	Proportion of All Journeys	
	Aged 16-64	Aged 65-79
All on foot	48%	62%
Some use of car or taxi	15%	15%
Some use of bus or coach	33%	22%
Some use of train or tube	4%	1%

The older age group had a much higher proportion of journeys which involved foot travel only. This is, of course, very much influenced by the fact that this group is not, on the whole, travelling to work.

All those who had been out during the week and had used some form of transport were asked whether this transport had been provided by the local authority. For both age groups 3% of journeys were said to have involved transport laid on by the local authority or provided under the auspices of the local authority.

5.5 GUIDED AND UNGUIDED FOOT TRAVEL IN RELATION TO ALL TRAVELLING

For the group aged 16-64 the proportion of total travelling time that was spent travelling on foot was 55%. For the older group (65-79) the proportion of total time spent travelling on foot was 63%. The proportion of total time spent travelling that was spent on foot and without the company of a sighted person, was 33% for those aged 16-64 and also 33% for those aged 65-79.

Thus, for both age groups, well over half the time spent travelling in a week was spent on foot, and a third of the time was spent on foot unguided.

When comparing the times for different individuals, it is difficult to proceed with total time since this is an aggregate which may or may not include travelling by bus, train, car or foot. Therefore, in order to compare travelling of a similar nature, all subsequent analyses of time are carried out with regard to foot travel only, either guided or unguided.

5.6 TIME SPENT ON FOOT TRAVEL

For a first examination those people who did any travelling on foot during the week were subdivided into those who had spent some of the time travelling on foot without a sighted person with them and those who had always had someone with them. Those in the first category do not, of course, always travel unguided but they have demonstrated that they are able to do so, and thus that they have achieved a certain level of independent mobility.

TABLE 5.8
Time Spent Travelling On Foot During the Week for Those Who
Only Travelled Guided and for Those Who Sometimes Travelled
Unguided

<i>Time Spent Travelling on Foot During the Week</i>	Aged 16-64	
	Those who travelled on foot during the week but never unguided	Those who travelled on foot during the week sometimes unguided
	%	%
Less than 1 hour	30	10
1 hour less than 3 hours	41	32
3 hours less than 5 hours	14	28
5 hours less than 7 hours	7	13
7 hours or more	8	17
	<hr/> 100	<hr/> 100
Base	240	649

Table 5.8 shows the difference in amount of time spent travelling during the week by those people who only went out with a sighted person and those who sometimes went out unguided. It is of interest to see that those who sometimes went out unguided spent considerably more time travelling in a week either with a sighted person or on their own than did those people who always went out with a sighted guide.

In Table 5.9 we show how the proportion of those who sometimes travel unguided increases with increasing time spent travelling on foot during the week.

TABLE 5.9
Time Spent Travelling on Foot by Whether or Not Any Travelling
is Done Unguided

<i>Whether Travelled on Foot Unguided At all During the Week</i>	Aged 16-64					
	Time Spent Travelling On Foot During the Week					
	Less than 1 hour	1 hour less than 3 hours	3 hours less than 5 hours	5 hours less than 7 hours	7 hours or more	Total
	%	%	%	%	%	%
Some travelling on foot but none unguided	54	32	15	18	14	27
Some travelling on foot sometimes unguided	46	68	85	82	86	73
	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100
Base	136	301	223	102	127	889

5.7 FOOT TRAVEL FOR DIFFERENT JOURNEY PURPOSES

Table 5.10 and 5.11 show how the time spent travelling on foot is distributed between different purposes of journey. The first table is con-

cerned with the time spent travelling on foot and the second deals with time spent travelling on foot unguided. The distributions are on the whole fairly similar for the two different kinds of travelling. The figures are given separately for males and females and this shows the difference in the purpose of journeys made, for the different sexes, the biggest difference being in the age group 16-64, between journeys to or from work and shopping. Although the proportion of shopping journeys for men aged 65-79 was higher than the proportion for men from the younger age group, the women still maintained a considerable lead in the proportion of time spent on journeys to go shopping.

TABLE 5.10
Proportion of Time Spent Travelling on Foot for Journeys of Different Purposes

<i>Main Purpose of Journey</i>	Proportion of Time Spent Travelling on Foot					
	Aged 16-64			Aged 65-79		
	Male	Female	Total	Male	Female	Total
	%	%	%	%	%	%
To or from work*	31	10	24	2	1	2
Shopping	16	40	25	33	52	41
Out for a walk	30	26	28	45	17	33
Visiting	8	10	9	8	10	9
Other purposes	15	14	14	12	20	15
	100	100	100	100	100	100
Proportion of Time	63%	37%	100%	56%	44%	100%

*Including in the course of work.

TABLE 5.11
Proportion of Time Spent Travelling on Foot Unguided for Journeys of Different Purposes

<i>Main Purpose of Journey</i>	Proportion of Time Spent Travelling on Foot Unguided					
	Aged 16-64			Aged 65-79		
	Male	Female	Total	Male	Female	Total
	%	%	%	%	%	%
To or from work*	41	15	33	2	2	2
Shopping	11	41	20	32	52	38
Out for a walk	29	21	27	49	21	40
Visiting	7	11	8	7	9	8
Other purposes	12	12	12	10	16	12
	100	100	100	100	100	100
Proportion of Time	70%	30%	100%	68%	32%	100%

*Including in the course of work.

In Tables 5.12 and 5.13 we show the proportion of people who did some foot travelling in the week, and who spent some time on a journey for each particular major purpose. As with the previous two tables, the first one deals with travelling on foot and the second one deals with travelling on foot unguided.

Over 70% of women foot travellers of each age range did some trips during the week in order to go shopping. There is again a big difference for the sexes and the ages with regard to doing any travelling to or from work. As far as going for a walk is concerned, a greater proportion of men than women went for at least one walk during the week, both for those doing foot travel and for those doing some unguided walking.

TABLE 5.12
Proportion of Foot Travellers Doing Some Travelling in the Week for the Major Purposes of Journey

Main Purpose of Journey	Proportion of Foot Travellers Doing Some Travelling in the Week for the Major Purposes of Journey						
	Aged 16- 64			Aged 65- 79			
	Male	Female	Total	Male	Female	Total	
	To or from work*	50%	18%	37%	5%	1%	2%
	Shopping	51%	71%	59%	62%	72%	68%
Out for a walk	42%	32%	38%	46%	22%	33%	
Visiting	39%	42%	40%	23%	34%	29%	
Base	525	364	889	128	159	287	

*Including in the course of work.

TABLE 5.13
Proportion of Unguided Foot Travellers Doing Some Travelling Unguided in the Week for the Major Purposes of Journey

Main Purpose of Journey	Proportion of Unguided Foot Travellers Doing Some Travelling Unguided in the Week for the Major Purposes of Journey						
	Aged 16-64			Aged 65-79			
	Male	Female	Total	Male	Female	Total	
	To or from work*	55%	24%	44%	5%	1%	3%
	Shopping	41%	75%	53%	57%	76%	67%
Out for a walk	34%	23%	30%	44%	17%	30%	
Visiting	31%	41%	34%	18%	27%	23%	
Base	417	232	649	87	89	176	

*Including in the course of work.

6.0 ANY UNGUIDED FOOT TRAVEL AS A MEASURE OF INDEPENDENT MOBILITY

6.1 MEASURE USED

From the data obtained about last week's travelling we wished to select people achieving a certain level of independent mobility and then to examine their characteristics. In this way we hoped to identify what sort of person could be expected to achieve a given level of independent mobility. As a first measure we classified the sample by whether or not each individual had done any travelling on foot unguided during the week preceding the interview. Travelling on foot unguided is the most independent type of travelling shown in Table 5.1 and involves 63% of those aged 16-64 and 42% of those aged 65-79. In the following analyses we look at sub-groups of the population and examine whether the proportion in each sub-group, who go out on foot unguided, varies appreciably from the overall figures of 63% and 42% for the two age groups.

All the tables in section 6.0 show for each cell of the table what proportion of the people in that cell went out on foot unguided. Thus from Table 6.1 we see that of all males aged 16-39 in the sample, 80% went out unguided during the week, whereas of all females aged 60-64 only 35% went out unguided during the week. Tables 6.1 to 6.7 are all of this form, showing the proportion of each particular cell who went out without a sighted person with them during the week before the interview.

6.2 CHARACTERISTICS OF THOSE ACHIEVING THIS LEVEL OF MOBILITY

The difference in the level of independent mobility for the two sexes was large, 69% of men aged 16-65 did some travelling on foot unguided compared with 53% of women of the same age range. For the older group the overall level was lower but the difference between the sexes was still apparent; 52% of men aged 65-79, and 35% of women aged 65-79, had done some travelling on foot unguided. The differences by sex are so great that the following tables are all given separately for men and women.

The second population characteristic which we examined was age. The younger age group was subdivided into the under 40's, 40-49, 50-59 and 60-64. The older age group was left as one. For both sexes there was a steep decline in mobility with advancing age. For those between 16 and 64 years the level of mobility ranged from 80% to 53% for the men, and from 82% to 35% for the women. The level of independent mobility achieved by those aged 65-79 was on a par with their male and female counterparts aged 60-64. The decline in the level of mobility as age increased started rather earlier among the women than the men although for the youngest groups of all (those who were under 40), where the level of independent mobility was highest, there was no appreciable difference between the sexes.

TABLE 6.1
Proportion of Blind People Who Did Some Travelling on Foot
Unguided, in the Week, by Age and Sex

<i>Proportion of People in Each Cell Who Did Some Travelling on Foot Unguided in the Week</i>	Aged 16-64					Aged 65-69
	All	16-39	40-49	50-59	60-64	All
Male	69% (602)*	80% (127)	73% (139)	71% (205)	53% (131)	52% (166)
Female	53% (442)	82% (65)	62% (89)	51% (145)	35% (143)	35% (254)
Total	63% (1044)	80% (192)	68% (228)	63% (350)	43% (274)	42% (410)

*Figures in brackets are base numbers.

A similar analysis was made taking the age at onset of blindness into consideration. The proportion who did some travelling on foot unguided was higher for those who had been blind from birth or from childhood and decreased as the age of onset increased. The proportion of women who did some travelling on foot unguided was lower than the proportion of men who achieved this level of independent mobility, for each group. For men, aged 16-64, the proportion fell from 81% of those blind at birth to 52% of those blind at 50 years old or more. For women, aged 16-64, the proportion fell from 70% of those blind at birth to 32% of those for whom the age at onset of blindness was 50 or more. With regard to the older group (65-79), the numbers were not sufficient to do a very detailed analysis by age at onset, but there did not appear to be a great variation with age at onset.

TABLE 6.2
Proportion of Blind People Who Did Some Travelling on Foot
Unguided in the Week by Age of Onset of Blindness and Sex

<i>Proportion of People in Each Cell Who Did Some Travelling on Foot Unguided in the Week</i>	Aged 16-64						Aged 65-79
	All	Blind from Birth	Blind before 20 yrs.	Blind at 20-39 yrs.	Blind at 40-49 yrs.	Blind at 50 or more	All
Male	69% (602)*	81% (117)	77% (118)	69% (166)	65% (95)	52% (106)	52% (166)
Female	53% (442)	70% (89)	64% (83)	60% (102)	42% (73)	32% (95)	35% (254)

*Figures in brackets are base numbers.

We have already seen that there is a large variation in the proportion of people doing some travelling on foot unguided with respect to each of the three variables—sex, age, and age at onset of blindness. We now examine the data with regard to all three variables to see whether a cumulative effect is demonstrated. The age group 65-79 does not yield sufficient numbers and so this analysis is done for those aged 16-64 only. Even for this group the base numbers for some of the cells are very small, but nevertheless fairly strong trends are visible.

TABLE 6.3
Proportion of Blind People Who Did Some Travelling On Foot
Unguided in the Week, by Sex, Age, and Age at Onset of Blindness

<i>Proportion of People in Each Cell Who Did Some Travelling On Foot Unguided in the Week</i>		Males Aged 16-64				Females Aged 16-64			
		16-39	40-49	50-59	60-64	16-39	40-49	50-59	60-64
A G E A T O N S E T O F B L I N D N E S S	Blind from birth	84% (38)*	73% (37)	87% (31)	82% (11)	87% (31)	70% (27)	56% (18)	46% (13)
	Blind before 20 years	79% (52)	80% (25)	81% (32)	44% (9)	75% (20)	76% (21)	48% (29)	62% (13)
	Blind at 20-39 years	76% (37)	70% (53)	65% (51)	64% (25)	78% (14)	48% (33)	59% (34)	43% (21)
	Blind at 40-49 years	—	71% (24)	73% (49)	41% (22)	—	50% (8)	55% (36)	24% (29)
	Blind at 50 years or more	—	—	57% (42)	48% (64)	—	—	36% (28)	30% (67)

*Figures in brackets are base numbers.

The variation in the proportion who did some travelling on foot unguided is much greater among the women than among the men. The cells for which one would expect the greatest difference are those containing the youngest age group, blind from birth, compared to those aged 60-64, blind at 50 years old or more. For the women this variation goes from over 80% to 30%, whereas for the men the proportion ranges from over 80% to just under 50%.

We go on to examine what the association is between the proportion of people doing some travelling on foot unguided during the week and the amount of residual sight useful for mobility that they have. Here again the results are given separately for males and females since there is such a difference between the sexes.

The proportion of people doing some travelling on foot unguided increases with increasing residual sight. The range of variation is greater for the women than for the men, the former varying from 25% to 70%; the latter from 54% to 85%, for those aged 16-64. We have already seen that age has a large effect, so in Table 6.5 we subdivide those aged 16-64 into narrower age bands in order to examine the effect of age and residual sight together.

TABLE 6.4

Proportion of Blind People Who Did Some Travelling on Foot Unguided in the Week,
by Sex and the Amount of Residual Sight Useful for Mobility

Proportion of People in Each Cell Who Did Some Travelling on Foot Unguided in the Week		Aged 16-64		Aged 65-79	
		Males	Females	Males	Females
R E S I D U A L S I G H T	Cannot see windows	54% (160)*	25% (117)	37% (42)	11% (38)
	Can see windows but no more	57% (105)	50% (76)	47% (35)	19% (67)
	Can see more but cannot see a cyclist	77% (151)	54% (151)	55% (51)	54% (96)
	Can see a cyclist	85% (186)	70% (98)	78% (38)	48% (53)
	All	69% (602)	53% (442)	52% (166)	35% (254)

* Figures in brackets are base numbers.

TABLE 6.5

Proportion of Blind People Who Did Some Travelling on Foot Unguided in the Week by Sex,
the Amount of Residual Sight Useful for Mobility and Age

Proportion of People in Each Cell Who Did Some Travelling on Foot Unguided in the Week		Males Aged 16-64				Females Aged 16-64			
		16-39	40-49	50-59	60-64	16-39	40-49	50-59	60-64
R E S I D U A L S I G H T	Cannot see windows	76% (30)	55% (48)	48% (49)	44% (33)	60% (16)	33% (22)	20% (41)	13% (38)
	Can see windows but no more	60% (15)	65% (18)	64% (37)	44% (35)	90% (10)	56% (17)	42% (25)	38% (24)
	Can see more but not cyclist	89% (35)	91% (25)	76% (57)	54% (34)	62% (12)	78% (28)	64% (48)	38% (63)
	Can see cyclist	83% (47)	83% (48)	92% (62)	74% (29)	96% (27)	77% (22)	76% (31)	63% (18)

* Figures in brackets are base numbers.

The cells which one would expect to show most difference in Table 6.5 are the ones containing the youngest age group who had the most residual sight, compared with the oldest group with the least residual sight, with the male proportion higher than the female. On examination of the table it can be seen that there is a strong trend which is consistent with independent variations with residual sight and age. For the males aged 16-64 the proportion for the cell expected to be highest is over 80% and for that expected to be lowest it is under 45%. For the females aged 16-64, the variation over the same cells ranges from over 90% to under 15%.

The data shows how, although the males and females start out very much on a par under the most favourable conditions, the drop out is much quicker and heavier for females than males.

Whether people go out on foot is likely to be related to whether or not they have any physical reasons for not wishing to do so. We obtained two measures of physical fitness. Firstly we asked each person who was inter-

viewed whether he had any other disability, apart from blindness, which prevented him from getting about. Secondly we asked each person how long he would be prepared to walk along a pavement at a brisk pace, with a sighted friend. In Table 3.9 we saw that there was a high association between these two measures of fitness.

TABLE 6.6
Proportion of Blind People Who Did Some Travelling on Foot
Unguided in the Week by Sex, Residual Sight Useful for
Mobility and Additional Disabilities

<i>Proportion of People in Each Cell Who Did Some Travelling On Foot Unguided in the Week</i>		Aged 16-64			
		Males		Females	
		Has additional disability besides blindness	Has no other disability	Has additional disability besides blindness	Has no other disability
R E S I D U A L S I G H T	Cannot see windows	37% (41)*	56% (119)	8% (39)	33% (78)
	Can see windows but no more	47% (34)	61% (71)	46% (26)	52% (50)
	Can see more but not cyclist	67% (42)	80% (109)	49% (72)	67% (79)
	Can see cyclist	64% (48)	90% (138)	64% (24)	84% (74)
	All	54% (165)	73% (437)	41% (161)	59% (281)

*Figures in brackets are base numbers.

<i>Proportion of People in Each Cell Who Did Some Travelling On Foot Unguided in the Week</i>		Aged 65-79			
		Males		Females	
		Has additional disability besides blindness	Has no other disability	Has additional disability besides blindness	Has no other disability
R E S I D U A L S I G H T	Cannot see windows	21% (20)*	48% (22)	9% (23)	13% (15)
	Can see windows but no more	33% (15)	58% (20)	15% (45)	27% (22)
	Can see more but not cyclist	52% (33)	65% (18)	56% (58)	52% (38)
	Can see cyclist	75% (13)	80% (25)	38% (23)	55% (30)
	All	44% (81)	63% (85)	33% (149)	42% (105)

*Figures in brackets are base numbers.

TABLE 6.7
Proportion of Blind People Who Did Some Travelling on Foot
Unguided in the Week by Sex, Residual Sight Useful for
Mobility and Whether Would Walk at A Brisk Pace

<i>Proportion of People in Each Cell Who Did Some Travelling On Foot Unguided in the Week</i>		Males Aged 16-64			Females Aged 16-64		
		Would not walk at a brisk pace	Would walk at a brisk pace for less than an hour	Would walk at a brisk pace for at least an hour	Would not walk at a brisk pace	Would walk at a brisk pace for less than an hour	Would walk at a brisk pace for at least an hour
REGISTERED UNABLE TO SEE CYCLIST	Cannot see windows	30% (28)	42% (34)	66% (98)	3% (28)	15% (35)	43% (54)
	Can see windows but no more	42% (27)	54% (23)	66% (55)	45% (20)	35% (24)	64% (32)
	Can see more but not cyclist	56% (25)	69% (45)	88% (81)	50% (56)	60% (50)	69% (45)
	Can see cyclist	69% (27)	81% (49)	90% (110)	57% (23)	87% (24)	86% (51)
	All	49% (107)	65% (151)	79% (344)	40% (127)	48% (133)	65% (182)

<i>Proportion of People in Each Cell Who Did Some Travelling On Foot Unguided in the Week</i>		Males Aged 65-79		Females Aged 65-79	
		Would not walk at a brisk pace	Would walk at a brisk pace	Would not walk at a brisk pace	Would walk at a brisk pace
REGISTERED UNABLE TO SEE CYCLIST	Cannot see windows	11% (19)	59% (23)	7% (32)	— (6)
	Can see windows but no more	42% (20)	53% (15)	18% (48)	22% (19)
	Can see more but not cyclist	45% (32)	72% (19)	51% (66)	61% (30)
	Can see cyclist	67% (12)	84% (26)	48% (31)	47% (22)
	All	38% (83)	67% (83)	31% (177)	45% (77)

*Figures in brackets are base numbers.

Tables 6.6 and 6.7 show that there is a greater range in the proportion of registered blind people going out on foot unguided when taking account of sex, residual sight and fitness, than when examining the variables previously discussed in this section. For the age group 16-64 only 3% of women who could not see the windows and who would not walk at a brisk pace did some travelling on foot unguided in the week, whereas 90% of men who could see a cyclist and would walk at a brisk pace for at least an hour did some travelling unguided. The comparable range of proportions when using the data about whether the person had any other disability is 8% to 90%.

Thus the data shows that for those people who are registered blind, additional handicaps (a low amount of residual sight, being female and having other physical disabilities) have a very significant cumulative effect on the level of independent mobility.

7.0 OTHER POSSIBLE MEASURES OF INDEPENDENT MOBILITY

Section 6.0 has been concerned with travelling at all unguided as a level of independent mobility. The variations which were observed were very great indeed and indicate that unguided foot travel is a very distinct measure of independent mobility. We examined various alternative criteria in the hope of establishing a definition of some higher level of independent mobility so that we could compare different levels of achievement and we discuss below the different variables which we examined.

7.1 TOTAL AMOUNT OF TIME TRAVELLING ON FOOT UNGUIDED

The question which provided the information about last week's travelling gave us the length of time spent travelling on foot unguided in addition to just whether or not the person went out unguided. We examined time spent travelling unguided to see whether the same strong trends observed in section 6.0 continued with increasing time spent unguided, or whether other variables were strongly associated with the time spent travelling unguided. If strong trends did exist then time could perhaps be used as the criterion of a higher level of independent mobility.

There were three main difficulties in using a measure of time spent travelling for this analysis. Firstly, whether a person went out unguided in the week was a fairly simple and definite classification, whereas in examining the actual time spent travelling unguided the data is classified into groups with less obvious boundaries and necessarily a lower level of accuracy. Secondly, we are trying to measure independent mobility. Whether or not a person goes out unguided gives a measure of this but does the amount of time spent travelling give us any further information about independence? There are many factors affecting the time people spend travelling. For example some people are employed and travel to and from work, others are not employed and have more leisure hours in which they could travel about, also the time taken depends to a large extent on the distance of the destination. Thirdly the time spent travelling unguided, that is without another sighted person, depends very much on the availability of a companion. A person may be able to go unguided when the situation necessitates it but may do much of his travelling in company. Thus many of the factors relating to the time spent travelling on foot unguided are not necessarily related to independent mobility.

An extension of the preliminary analysis of section 6.0 was applied to the time spent travelling on foot unguided but there was no continuation of the trends. Neither were there any other notable variations to suggest that a measure of time differentiated between travellers of different levels of independence.

7.2 GOING OUT FOR WALKS UNGUIDED

Since the time spent travelling unguided did not prove to be a very productive variable to study we next looked at the purpose of journey.

Since most of the journeys had a definite destination or purpose this could well provide sufficient motivation to the individual to undertake the journey. For this reason it was difficult to establish whether the journeys were easily accomplished or only attempted because of the impetus given by the purpose of the journey. However, unguided journeys for which the main purpose given was “going for a walk” would seem to be indicative of a general desire for, and ability for independent mobility.

We divided those who did any travelling on foot unguided into three sight groups (i) those who could not see windows together with those who could see windows but no more, (ii) those who could see more but could not see a cyclist, and (iii) those who could see a cyclist on the other side of the road. Each of these sight groups was divided into those who had spent some time travelling on foot unguided for a walk during the week and those who had not.

As with the use of time as a variable there were difficulties in using walking unguided as a criterion of independent mobility. Here again the availability of a companion obviously influences whether a person travels unguided and secondly, going for a walk is something which some people enjoy very much and which others do not, and neither of these things is necessarily related to independent mobility.

On examination the groups did not show any appreciable differences between unguided walkers and unguided non-walkers.

7.3 SELF ASSESSMENT OF SOME ABILITIES NEEDED FOR MOBILITY

The question about travelling last week gave us a great deal of very useful information about what blind people did, in the way of travelling, in a week. It could not, however, tell us how good they were at getting about, or the extent of their independence under conditions of necessity.

The only way of establishing these things with any precision would be by observation and by testing over obstacle courses.

The nearest we could approach establishing how good the blind people were as travellers was by selecting those who claimed to be most successful at getting about according to a group of questions asked about mobility habits. The questions chosen for this exercise were related to some of the problems which would be encountered during unguided travel, and they referred to travelling experience rather than to attitudes.

The four questions used are given below together with the answers which were to count as fulfilling the conditions. All four requirements had to be met for the person to be selected.

Q.1 We are interested to know how much people bump into things they cannot see. Would you say you bump into things very frequently, fairly frequently or hardly ever?

A Hardly ever.

Q.2 How easy do you find it to walk in a straight line when there is nothing to guide you? Would you say you find this very difficult, fairly difficult or fairly easy?

A Fairly easy.

Q.3 Do you ever cross roads, with traffic, unguided?

A Yes.

Q.4 During the last three months have you added to the routes you know either by completely new routes, or new parts added to old routes?

A Have done some new routes.

These are four attributes which we suggest would indicate a high level of independent mobility. The restrictions imposed by these questions are rather stringent, and from those aged 16-64 who had done some unguided travel during the week 6% (39 people) met all four of the requirements. If selecting on these criteria has been successful in picking out a group of good independent registered blind travellers then, although the group is rather small, it should nevertheless be big enough to show any outstanding characteristics of these travellers.

The characteristics of the 39 were as follows: — 87% of them were men; 92% of them said that they would walk along a pavement, with a sighted friend, for an hour or more at a brisk pace; 92% of them said they had no other disability in addition to blindness; 82% said they could see more than just the windows, and 64% said they could see a cyclist go by on the other side of the road; 74% said that blindness limited the amount they get about very little; 62% were blind before they were twenty.

It would appear that those people who were selected on the basis of our four criteria had several common characteristics, were a very mobile group of the registered blind but were also predominantly people who had a considerable amount of residual sight useful for mobility.

We examined the amount of time these “good travellers” spent on foot and on foot unguided during the week. Although the proportion spending seven hours or more a week on foot (and on foot unguided) was higher for this group, there was no preponderance of large amounts of time in the same way as there was a preponderance of the characteristics specified above. This illustrates the point made earlier that those who are capable of independent mobility do not necessarily spend a large amount of time travelling, since the time spent travelling depends very much on the purpose and destination of the journey. We did not find from the survey data any characteristic other than whether or not the person travelled on foot unguided, which proved to be a good measure of independent mobility.

8.0 IMPORTANCE OF RESIDUAL SIGHT

The preceding sections have shown that we were unable to establish from the travelling information any measure of independent mobility which was superior to our first classification; that is, whether or not the person travelled unguided at all during the week before the interview. Throughout the analyses of measures of independent mobility one of the continually outstanding factors was the amount of residual sight that the person had.

The first part of this section shows some of the limitations felt by those who went out unguided and those who did not, showing the amount of residual sight. The second section concentrates on those aged 16-64 who went out unguided, and shows the differences in mobility patterns for varying amounts of residual sight.

8.1 LIMITATION FELT ACCORDING TO RESIDUAL SIGHT AND MOBILITY LEVEL

One of the first questions which needs to be answered is whether the extent of the limitation to mobility felt by a blind person varies between

TABLE 8.1
Whether Blindness Limits Mobility by Level of Mobility Achieved and Residual Sight

How Much <i>Would You Say Your Blindness Limits The Amount You Get About?</i>	Aged 16-64								
	Travelled unguided in the week				Did not travel unguided in the week				All
	Cannot see windows	Can see windows but no more	Can see more but not cyclist	Can see cyclist	Cannot see windows	Can see windows but no more	Can see more but not cyclist	Can see cyclist	
	%	%	%	%	%	%	%	%	
	%	%	%	%	%	%	%	%	
Very much	31	40	40	17	64	69	59	37	42
To some extent	24	25	34	30	17	18	26	25	26
Very little	45	35	26	53	19	13	15	38	32
	100	100	100	100	100	100	100	100	100
Base	114	95	206	230	157	81	97	48	1,044*

How Much Would You Say Your Blindness Limits The Amount You Get About?	Aged 65- 79		
	Travelled unguided in the week	Did not travel unguided in the week	All
	%	%	%
Very much	56	64	60
To some extent	28	21	24
Very little	16	15	16
	100	100	100
Base	176	244	420

*This total includes some cases for which last week's travelling was unknown.

groups for which the level of mobility achieved is different and for which the amount of residual sight is different. Parallel with this question runs a second concerned with whether there is any difference, over the same groups, in the interest shown in the idea of going on a course to improve mobility?

Table 8.1 shows that the proportion of people considering that their mobility was very much limited by their blindness was much greater for those who had not been out unguided during the week before the interview. This was so for each level of residual sight. The group for which residual sight was of greatest significance was the one consisting of those who could see a cyclist. For this group the proportion of people saying that they felt their mobility was very limited was considerably lower than for the other residual sight groups. It is of interest to note that a considerable proportion (45%) of those who could not see the windows, but who went out unguided (aged 16-64), said that their mobility was limited very little by their blindness. It would seem, therefore, that for those who can see a cyclist the problem of limitation to mobility because of blindness is much reduced. For those at the other end of the residual sight scale (cannot see windows), a large proportion of those who went out unguided felt their mobility was

TABLE 8.2
Whether Would Be Prepared to go on a Mobility Course by Level of
Mobility Achieved and Residual Sight

Whether Would Be Prepared to go on a Mobility Course	Aged 16-64								All
	Travelled unguided in the week				Did not travel unguided in the week				
	Cannot see windows	Can see windows but no more	Can see more but not cyclist	Can see cyclist	Cannot see windows	Can see windows but no more	Can see more but not cyclist	Can see cyclist	
	%	%	%	%	%	%	%	%	
Not for one month	62	67	69	78	81	75	74	79	73
For one month, not for three	12	7	9	8	7	14	9	6	9
For three months	26	26	22	14	12	11	17	15	18
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	100	100	100	100	100	100	100	100	100
Base	114	95	206	230	157	81	97	48	1,044*

<i>Whether Would Be Prepared to go on a Mobility Course</i>	Aged 65-79		
	Travelled unguided in the week	Did not travel unguided in the week	All
	%	%	%
Not for one month	82	91	88
For one month, not for three	7	4	5
For three months	11	5	7
	<hr/>	<hr/>	<hr/>
	100	100	100
Base	176	244	420

*This total includes some cases for which last week's travelling was unknown.

limited very little, whereas the majority of those who did not achieve this level of mobility during the week felt their mobility was limited very much.

In view of the strong variations in relation to this feeling of limitation, we examine next the response to the suggestion of going on a mobility course to learn to get about better.

It is difficult to know how realistic are the answers given to a question about being trained when the person cannot know what the training would involve, and may never have thought about the possibility before. Despite the question's limitations, Table 8.2 shows that among those who were aged 16-64 there was always more than 10% saying they would be interested in a three month mobility course. In general those who went out unguided were more interested in getting even further, and those with the least residual sight were most interested of all.

8.2 RESIDUAL SIGHT AND THE PROBLEMS OF THE UNGUIDED FOOT TRAVELLER

In the tables which follow, we give the results of the questions which were related to specific mobility problems and we examine the data in relation to the amount of residual sight. This analysis can only be done for the age group 16-64, since the numbers of those aged 65-79 who travelled unguided is not large enough for such detailed breakdowns.

Crossing busy roads is a hazard that any registered blind person travelling alone has to be able to cope with. Either he must manage this by himself or he must rely on other people to give him some assistance at this point. We asked those who had done some travelling, unguided, during the week before the interview whether they ever cross roads, with traffic, unguided. The results are shown for the different residual sight groups. Nearly three-quarters (74%) of all those who did some unguided travel said that they do cross by themselves. As far as residual sight is concerned, the group that showed an appreciable difference were those who could see a cyclist on the other side of the road – 84% of these said they crossed roads unguided.

TABLE 8.3
Proportion of Those Who Travelled Unguided Saying They Cross Roads, With Traffic, Unguided, by Amount of Residual Sight

Do You Ever Cross Roads, With Traffic, Unguided?	Aged 16-64				
	Those Who Travelled Unguided During the Week				
	Cannot see windows	Can see windows but no more	Can see more but cannot see cyclist	Can see cyclist	All
	%	%	%	%	%
Yes	71	61	69	84	74
No	29	39	31	16	26
	100	100	100	100	100
Base	114	95	206	230	649*

*This total includes some cases for which residual sight was not known.

The next mobility problems to be examined were the frequency with which registered blind people bump into things, when they are travelling about, and how prepared they would be to go on a new route. Thirteen percent of those who do some travelling unguided said that they bump into things very frequently and 67% said that this very rarely happens. When examined in terms of the amount of residual sight, it was the two extreme groups, those who could not see the windows and those who could see a cyclist, which had the greatest proportion of people saying they hardly ever bumped into things (72%, 78% respectively). For the intermediate groups, the proportion who said they bumped into things very frequently was much higher than for the extreme sight groups (19% and 18% compared with 5% and 8%).

TABLE 8.4
Proportion of Those Who Travelled Unguided Who Frequently Bump Into Things, by Amount of Residual Sight

<i>How Often Would You Say You Bump Into Things?</i>	Aged 16-64				
	Those Who Travelled Unguided During the Week				
	Cannot see windows	Can see windows but no more	Can see more but cannot see cyclist	Can see cyclist	All
	%	%	%	%	%
Very frequently	5	19	18	8	13
Fairly frequently	23	26	23	14	20
Hardly ever	72	55	59	78	67
	100	100	100	100	100
Base	114	95	206	230	649*

*This total includes some cases for which residual sight was unknown.

When a person is suffering from extreme visual impairment, he has to concentrate his attention on finding out about his environment and the hazards within it, by using what residual sight he has left or by using his other senses. There are many varied conditions under which he must try to gain knowledge about his surroundings in order to travel safely. We selected four different conditions which might make travelling more difficult for someone registered blind, and asked each person who went out unguided which condition made travelling most difficult for him. The four conditions used were:

- (i) A lot of people on the pavement;
- (ii) High wind;
- (iii) A lot of traffic noise;
- (iv) Deep snow on the ground.

Sometimes when asking people to select one thing from four those who have no strong feelings about the matter are influenced by the order in which the conditions are listed. We designed the schedule so that the order was rotated. We had four different orders and a quarter of the schedules were printed in each form. The schedules were then mixed and used as required by the interviewers. The results obtained from the question are shown below.

TABLE 8.5

Proportion of Those Who Travelled Unguided Who Selected Each of the Conditions as the Most Difficult to Cope With, by Amount of Residual Sight

<i>The Most Difficult Condition for Walking Without a Sighted Guide</i>	Aged 16-64				
	Those Who Travelled Unguided in the Week				
	Cannot see windows	Can see windows but no more	Can see more but cannot see cyclist	Can see cyclist	All
	%	%	%	%	%
A lot of people on the pavement	2	13	16	29	18
High wind	20	20	10	12	14
A lot of traffic noise	13	13	13	10	12
Deep snow on the ground	61	52	58	36	50
No choice made	4	2	3	13	6
	100	100	100	100	100
Base	114	95	206	230	649*

*This total includes some cases for which residual sight was unknown.

The importance of the conditions varies with the amount of residual sight. For those who could not see the windows the largest proportion said deep snow was the most difficult condition (64%); 20% said that high wind was the most difficult condition and 13% said a lot of traffic noise was the worst. For those who could see a cyclist on the other side of the road the biggest group comprised those who said that deep snow was the most difficult condition (36%). Although this was the biggest proportion, it was much lower than the comparable proportion for those who could not see the windows (64%). The second largest group among those who could see a cyclist said that a lot of people on the pavement was the most difficult condition for getting about. It is interesting to see how this particular condition increased in relative importance as one passed into groups with more residual sight.

If a registered blind person who travels alone is able to walk in a straight line, without veering too much, then he is in a much better position for maintaining his orientation. For example, if he can go straight across a road then he will be able to continue his route fairly easily. If, on the other hand, he veers to the right or left to any extent he may go off in the wrong direction, or he may have to spend time locating himself. To find out whether they considered this to be a problem, we asked those who travelled unguided in the week, "How easy do you find it to walk in a straight line when there is nothing to guide you?"

The problem of veering is not nearly so large among those who can see a cyclist as for other residual sight groups; 79% of those who could see a cyclist said that walking in a straight line was fairly easy. This compares with 33%, 37% and 44% of the other sight groups who said it was fairly easy.

TABLE 8.6
Proportion of Those Who Travelled Unguided Who Find Walking in a Straight Line
Difficult by Amount of Residual Sight

<i>How Easy Do You Find It to Walk In a Straight Line When There Is Nothing To Guide You?</i>	Aged 16-64				
	Those Who Travelled Unguided During the Week				
	Cannot see windows	Can see windows but no more	Can see more but cannot see cyclist	Can see cyclist	All
	%	%	%	%	%
Very difficult	33	34	26	10	22
Fairly difficult	30	26	25	10	21
Fairly easy	33	37	44	79	53
Could not say	4	3	5	1	4
	100	100	100	100	100
Base	114	95	206	230	649*

* This total includes some cases for which residual sight was unknown.

In Table 8.7 we show how people in the various residual sight groups get to know that there are obstacles on or alongside the pavement. The awareness of surroundings varies very much in the different sight groups. Those who can see a cyclist on the other side of the street can see a parked lorry, a pram, lamp-posts, and can mostly see the edge of the kerb. At the other extreme, those who cannot see windows say they can sense some of the larger obstacles, such as a parked lorry or lamp posts, but have less success with other obstacles.

We were also interested to know whether the people, who sometimes made journeys alone, found it any more tiring travelling unguided than with a sighted person. We asked them, "Do you find that going along a route you know is more tiring on your own than with a sighted guide?" For the group as a whole 63% said that travelling alone was no more tiring. Taking residual sight into account, it was the group who could see a cyclist on the other side of the road whose answers were markedly different, 76% saying that they would find travelling alone no more tiring than travelling with a sighted person.

To ascertain whether those people who sometimes travelled unguided were prepared to cover new ground, we asked, "If it were important to you, would you be prepared to go to a place half a mile away from here, along a route you don't already know, without a sighted guide?" The answers were put into one of three groups, "yes, unqualified", "yes, qualified" and "no". The qualifications given were of various sorts, which implied a lack of complete confidence in undertaking an unknown route.

Twenty-two per cent of those who travelled unguided during the week before the interview said they would not undertake such a journey; 15% said they would but gave qualifications about the circumstances, and 63% said they would undertake such a journey. As with the problem of

TABLE 8.7
How Aware Those Who Travelled Unguided Are of What is Around Them,
by Amount of Residual Sight

<i>Whether Blind People Are Aware of Obstacles Around Them</i>	Aged 16-64				
	Those Who Travelled Unguided During the Week				
	Cannot see windows	Can see windows but no more	Can see more but cannot see cyclist	Can see cyclist	All
When you are walking along a pavement and you pass a parked lorry with the engine off, have you enough sight to see it, (and if not) can you sense it is there?	%	%	%	%	%
Can see it	—	17	83	99	64
Can sense it	87	64	13	} 1	29
Neither	13	19	4		7
	100	100	100	100	100
When you are walking along a pavement that has lamp-posts, have you enough sight to see them, (and if not) can you sense that they are there?	%	%	%	%	%
Can see it	—	13	69	99	60
Can sense it	87	45	16	1	22
Neither	13	42	15	—	18
	100	100	100	100	100
When you are walking along a pavement and there is a pram in your way, have you enough sight to see it, (and if not) can you sense that it is there?	%	%	%	%	%
Can see it	—	15	66	97	58
Can sense it	22	23	12	1	11
Neither	78	62	22	2	31
	100	100	100	100	100
When you are walking along the pavement and you come to a road you have to cross, can you see the edge of the kerb?	%	%	%	%	%
Yes	—	10	56	91	51
No	100	90	44	9	49
	100	100	100	100	100
Base	114	95	206	230	649*

* This total includes some cases for which residual sight was not known.

TABLE 8.8

Proportion of Those Who Travelled Unguided Who Find Travelling Alone More Tiring Than Travelling With a Sighted Person by Amount of Residual Sight

<i>Do You Find That Going Along a Route You Know is More Tiring On Your Own Than With a Sighted Guide?</i>	Aged 16-64				
	Those Who Travelled Unguided During the Week				
	Cannot see windows	Can see windows but no more	Can see more but cannot see cyclist	Can see cyclist	All
	%	%	%	%	%
A lot more tiring	22	26	25	11	19
A bit more tiring	20	25	20	13	18
No more tiring	58	49	55	76	63
	100	100	100	100	100
Base	114	95	206	230	649*

*This total includes some cases for which residual sight was unknown.

bumping into things, it was the two extreme residual sight groups which appeared to have the higher standard of general mobility. The proportion who said that they would not attempt a half mile journey along an unfamiliar route was 19% and 13% for the extreme sight groups, but 33% and 28% for the intermediate sight groups.

Table 8.9

Proportion of Those Who Travelled Unguided Who Would Do a Half Mile Journey Along an Unfamiliar Route, By Amount of Residual Sight

<i>Whether Would Be Prepared to Do a Half Mile Journey Along An Unfamiliar Route, Unguided</i>	Aged 16-64				
	Those Who Travelled Unguided During the Week				
	Cannot see windows	Can see windows but no more	Can see more but cannot see cyclist	Can see cyclist	All
	%	%	%	%	%
Yes, unqualified	66	49	55	74	63
Yes, qualified	15	18	17	13	15
No	19	33	28	13	22
	100	100	100	100	100
Base	114	95	206	230	649*

* This total includes some cases for which residual sight was unknown.

In connection with new routes, we also asked whether the person had, in the last three months, added to the routes he knew, either completely new routes or new parts added to old routes. Over three quarters of those who had been out unguided during the week said that, in the last three months, they had not added anything to their routes; 17% said they had done some completely new routes and 6% said they had added parts to old routes. These proportions showed no appreciable variation with residual sight.

TABLE 8.10
Proportion of Those Who Travelled Unguided Who Said They Had Added to the Routes They Knew in the Last Three Months, by Amount of Residual Sight

<i>In the Last Three Months Have You Added To the Routes You Know?</i>	Aged 16-64				
	Those Who Travelled Unguided During the Week				
	Cannot see windows	Can see windows but no more	Can see more but cannot see cyclist	Can see cyclist	All
	%	%	%	%	%
New routes	14	18	16	18	17
New parts	13	4	6	4	6
None	73	78	78	78	77
	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100
Base	114	95	206	230	649*

* This total includes some cases for which residual sight was unknown.

It is of interest to compare the results of Table 8.10 with those of Table 8.9. Only 23% of those who travelled unguided claimed to have covered any new routes, or parts of routes, in the previous three months, whereas 63% had said that they would if necessary go on a half mile journey along an unfamiliar route. This suggests that travelling on unfamiliar ground is generally only done when there is a special need.

With so many strong variations in mobility occurring with the amount of residual sight, it would seem that any effort to organise mobility training for the registered blind should be very clearly orientated to the needs of the different residual sight groups.

9.0 AIDS TO MOBILITY AT PRESENT IN USE

The two non-human aids to mobility at present used by blind people are sticks and Guide Dogs. Thirty-four Guide Dog Owners were selected in our sample, that is 3% of those aged 16-64. As far as sticks are concerned, 58% of the 16-64's and 66% of the 65-79s had at least one stick that they used for getting about.

9.1 STICKS

The use of a stick often white in colour is one of the traditional aids for blind people and there are three main functions which it can perform. It can be used to detect obstacles, it can be used as a sign to other people and it can be used, as anyone might use a stick, for support. By no means all people who are registered blind make use of a stick when they are getting about and part of the interview was designed to obtain information about who uses a stick and what sort of stick they generally use. We have already mentioned that 58% of those aged 16-64 had a stick they used, as had 66% of those aged 65-79.

A stick is quite a simple aid to blind mobility and is easily accessible. Used systematically it can give a blind person quite a lot of information about his surroundings. We asked all the people in the sample whether they had ever been taught how to use a stick for getting about. Of those aged 16-64, 85% said they had not, as did 89% of those aged 65-79. Those of the younger age group who had been taught about using a stick (15%) had been taught either by their home teacher or at Torquay Rehabilitation Centre. Those of the older group who had been given any instruction (11%) had received it from the home teacher.

For the most part the sticks which people had were of the standard stick sizes (33 ins and 36 ins), and the great majority were white (84% of sticks of the 16-64s were white; 90% of sticks of 65-79s were white). For the younger group, of those who had sticks 80% had one stick only, 16% had one rigid and one collapsible; the rest had two rigid ones or two collapsible ones. For the older age group of those who had sticks 83% had only one; 11% had one rigid and one collapsible; 5% had two rigid and 1% had two collapsible. Where the informant had more than one stick we asked him which one he used more often and took this to be the main stick. We give below the distribution, by age and sex, of whether a stick is used and if so what sort of stick the main stick is.

A greater proportion of men than women had sticks and the proportion with sticks increased with age for both men and women. It is of interest to note that the proportion of men who use a collapsible stick decreases with age; for the women, however, there is no such general trend. A much higher proportion of young women (16-49) do not use a stick at all than the same age group of men. It is not until one gets to the group of women 60-64 years old that more than half of them have a stick they use, whereas there is

TABLE 9.1
**The Proportion of People Who Said They Used a Stick for Getting About,
Giving Type of Main Stick, by Age and by Sex**

Type of Stick	Aged 16-64					Aged 65-79
	Male					Male
	16-39	40-49	50-59	60-64	All	65-79
	%	%	%	%	%	%
Main stick collapsible	43	33	27	27	32	17
Main stick rigid	14	27	37	46	32	58
No stick used	43	40	36	27	36	25
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
Base	127	139	205	131	602	166
Type of Stick	Female					Female
	16-39	40-49	50-59	60-64	All	65-79
	%	%	%	%	%	%
	%	%	%	%	%	%
Main stick collapsible	38	26	34	38	34	20
Main stick rigid	3	15	16	24	17	39
No stick used	59	59	50	38	49	41
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
Base	65	89	145	143	442	254

no age group of males for which the proportion who use a stick is as low as a half.

We examine next the differences in the proportions of those who had sticks and those who did not according to when the person went blind and also by the survey definition of residual sight as related to mobility.

TABLE 9.2
**The Proportion that Had at Least One Stick They Used for Getting
About by Age at Onset of Blindness**

Whether Uses Stick	Aged 16-64							All
	Blind from birth	Became blind under 20	Became blind at 20-29	Became blind at 30-39	Became blind at 40-49	Became blind at 50-59	Became blind at 60-64	
	%	%	%	%	%	%	%	
	%	%	%	%	%	%	%	
Has at least one stick	48	56	56	65	56	70	67	58
Has no stick	52	44	44	35	44	30	33	42
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
Base	206	201	135	133	168	171	30	1,044

This analysis is only given for those aged 16-64 since the numbers in the older age group are too small to give this wide breakdown. The number of people who say they use a stick increases with the age at which they became blind, 46% of those blind from birth using a stick compared with nearly 70% of those blind at 50 to 64 years old.

The following table deals with the proportion who use a stick according to the amount of residual sight useful for mobility that they have.

TABLE 9.3
The Proportion That Had at Least One Stick They Used for Getting
About by the Survey Classification of Residual Sight

<i>Whether Uses Stick</i>	Aged 16-64					
	Cannot see windows	Can see windows but no more	Can see more but cannot see car	Can see car but not cyclist	Can see cyclist	All
	%	%	%	%	%	%
Has at least one stick	79	74	60	60	28	58
Has no stick	21	26	40	40	72	42
	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100
Base	271	176	136	167	278	1,044*

<i>Whether Uses Stick</i>	Aged 65-79					
	Cannot see windows	Can see windows but no more	Can see more but cannot see car	Can see car but not cyclist	Can see cyclist	All
	%	%	%	%	%	%
Has at least one stick	70	67	80	68	56	66
Has no stick	30	33	20	32	44	34
	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100
Base	79	97	70	71	87	420*

*These totals include some cases for which residual sight was unknown.

The proportion who used a stick was highest in the group with the most severe visual handicap and decreased with increasing amount of residual sight, the biggest difference occurring in the group who could see a cyclist on the other side of the road. In the age group 16-64 the proportion having a stick they use for getting about fell from 79% of those who could not see the windows to 28% of those who could see a cyclist. There is a trend in the same direction for those aged 65-79 but it is not so marked in this group.

We also examined whether or not the informant used a stick in relation to whether he went out during the week prior to the interview.

TABLE 9.4
The Proportion Who Had at Least One Stick They Used for
Getting About, by Level of Mobility Achieved in the Week

<i>Whether Uses Stick</i>	Aged 16-64				
	Did not go out at all during the week	Went out but no travelling on foot	Some travelling on foot, but none unguided	Some travelling on foot, sometimes unguided	All
	%	%	%	%	%
Has at least one stick	55	64	62	57	58
Has no stick	45	36	38	43	42
	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100
Base	80	62	240	649	1,044*

<i>Whether Uses Stick</i>	Aged 65-79				
	Did not go out at all during the week	Went out but no travelling on foot	Some travelling on foot, but none unguided	Some travelling on foot, sometimes unguided	All
	%	%	%	%	%
Has at least one stick	39	64	73	75	66
Has no stick	61	36	27	25	34
	100	100	100	100	100
Base	94	33	111	176	420*

*These totals include some cases for which the mobility achieved was unknown.

We have already seen that whether or not a stick is used varies with age, sex, age at onset of blindness and the amount of residual sight. The data in Table 9.4 does not show any systematic variation with the level of mobility achieved in the week. This probably reflects the fact that there are three main functions that a stick can perform and that different functions are more relevant to different levels of mobility.

Since Table 9.4 deals with such heterogeneous groups we have selected one group and now look at this more closely. Those people who went out on foot unguided during the week were asked whether or not they always used a stick when they were travelling unguided. We show this with regard to the amount of residual sight the individuals have.

TABLE 9.5
Proportion of Those Who Did Some Travelling On Foot Unguided Who Always Use a Stick When Unguided for Different Amounts of Residual Sight

<i>Whether A Stick Is Always Used When Travelling Unguided</i>	Aged 16-64				
	Those Who Did Some Travelling Unguided During the Week				
	Cannot see windows	Can see windows but no more	Can see more but not cyclist	Can see cyclist	All
	%	%	%	%	%
Always	74	66	42	15	42
Sometimes	9	16	20	12	15
Never	17	18	38	73	43
	100	100	100	100	100
Base	114	95	206	230	649*

*This total includes some cases for which residual sight was unknown.

We looked at the reasons given by those aged 16-64 for not using a stick. For those who could not see the windows and who never used a stick when travelling unguided, over half of those said this was because they had a Guide Dog. Similarly, of those who only sometimes used a stick when travelling unguided half said having a Guide Dog was the reason for not always using a stick.

Of those who could see the windows but no more and who never used a stick when travelling unguided, about half said this was because they had a Guide Dog, about a quarter said they were opposed to using sticks. For those who only sometimes used a stick when travelling alone the major reason given was that the travelling done was on short familiar journeys.

For those who never use a stick when travelling unguided and can see more than the windows but not a cyclist, over a half gave the reason that they were opposed to sticks. Other reasons given were that the person could manage without, or had enough residual sight not to need one.

For those who could see more than windows but not a cyclist who said they only sometimes used a stick when travelling unguided the main reasons given for not always using a stick were that the travelling was over short familiar journeys or that they were opposed to using sticks.

The people who could see a cyclist and who never used a stick when travelling unguided gave three main reasons for this, that they had sufficient sight not to need one, or that they could manage without one or they were opposed to using a stick. The main reason, given by those who had this amount of sight and only sometimes used a stick, was opposition to sticks.

In Tables 9.1 to 9.5 we have been concerned with whether or not registered blind people have sticks which they use for getting about. We now go on to consider in more detail the group of people who do use a stick for getting about. We have already talked about the fact that there are three main ways in which a stick can be helpful and we therefore asked each person who used a stick which of the functions was most important to him, the three functions being,

- (i) as a support
- (ii) to detect obstacles
- or (iii) to let people know so that they can help.

As well as there being three main functions of a stick there are two very different kinds of stick or cane used by blind people. There are the rigid walking sticks and there are the metal collapsible canes. The following analyses are necessarily given separately for the type of main stick used.

TABLE 9.7
The Proportion Finding the Different Function of A Stick Most Important by the Type of Main Stick Used

<i>The Most Important Function of a Stick</i>	Aged 16-64				
	Main stick is collapsible		Main stick is rigid		All stick users
	Male	Female	Male	Female	
	%	%	%	%	
As a support	1	1	18	29	10
To detect obstacles	49	46	58	44	50
To let people know	50	53	24	27	40
	100	100	100	100	100
Base*	190	152	191	73	603†

<i>The Most Important Function of a Stick</i>	Aged 65-79				
	Main stick is collapsible		Main stick is rigid		All stick users
	Male	Female	Male	Female	
	%	%	%	%	%
As a support	—	8	32	45	29
To detect obstacles	70	31	50	32	42
To let people know	30	61	18	23	29
	100	100	100	100	100
Base*	27	52	95	98	276†

*Tables based on those who said they had a stick they used for getting about.

†These totals include some cases for which type of stick was unknown.

We look first at those aged 16-64. There is virtually no difference in distribution between the males and females whose main stick is a collapsible one, and about a half said that to let people know was the most important function and about half said to detect obstacles was the most important function. The distribution of the most important function was different for rigid stick users. Here the third function, as a support, became important. For the rigid stick users there was also a difference between the sexes, there being a higher proportion of females than males saying the most important function was as a support and a corresponding lower proportion of females saying the most important function was to detect obstacles.

For the age group 65-79 there is a difference between sexes for both types of stick. For those using a collapsible stick to "detect obstacles" was the predominant main function for the males and "to let people know" was predominant among the females. The variation between the rigid and collapsible sticks and between males and females using rigid sticks was of a similar nature to the variations in the age group 16-64. The differences which occur within the age group 65-79 are rather difficult to pursue for the numbers rapidly become very small and in addition one is constantly aware that it is not only blindness that is causing variations but also other concomitants of old age.

We continue with some further analyses of the most important function of a stick for different kinds of users but because of the limitations of insufficient numbers these are given for the age group 16-64 only.

There are four questions to which, at this stage, we would like the answers. Is the most important function of a stick different for blind people of different ages? Does it depend to any extent on whether or not the blind person has any other additional disabilities? How much does the distribution vary for different amounts of residual sight, and what is the most important function of a stick for people who use a stick but who achieve different levels of mobility?

Table 9.8 shows the distribution of the main function of a stick for different ages. The importance of a rigid stick as a support increases with age. As for collapsible sticks the proportion saying the main use is to detect obstacles increases with age whereas the proportion saying that to let people know so they can help decreases with age.

TABLE 9.8
The Most Important Function of a Stick by Type of Main Stick
and Age of Blind Person

<i>The Most Important Function of a Stick</i>	Aged 16-64								
	Main stick is collapsible				Main stick is rigid				All stick users
	16-39	40-49	50-59	60-64	16-39	40-49	50-59	60-64	
	%	%	%	%	%	%	%	%	%
As a support	1	—	2	1	15	10	18	31	10
To detect obstacles	37	49	52	50	65	72	56	41	50
To let people know	62	51	46	49	20	18	26	28	40
	100	100	100	100	100	100	100	100	100
Base	79	69	105	89	20	50	99	95	608*

*This total includes some cases for which type of stick was unknown.

Table 9.9 shows the most important function of a stick according to whether or not the individual has any additional disability as well as blindness. As one might expect it is the rigid stick and the function "as a support" which is most affected by additional disability. Of those with rigid sticks and having some additional disability 40% said the main function of the stick was as a support. This compares with 10% of all stick users.

TABLE 9.9
The Most Important Function of a Stick by Type of Main Stick
Used and Whether There Was Any Additional Disability

<i>The Most Important Function of a Stick</i>	Aged 16-64				
	Main stick is collapsible		Main stick is rigid		All stick users
	Additional disability	No other disability	Additional disability	No other disability	
	%	%	%	%	%
As a support	1	1	40	9	10
To detect obstacles	49	47	42	62	50
To let people know	50	52	18	29	40
	100	100	100	100	100
Base	87	255	107	157	608*

*This total includes some cases for which type of stick was unknown.

Table 9.10 shows the variation in function of stick for varying amounts of residual sight. For those people whose main stick was collapsible the proportion giving the main purpose of a stick as to detect obstacles decreased with increasing residual sight while the proportion saying that they used it to let people know increased with increasing residual sight. For those who could see a cyclist on the other side of the road and used a collapsible stick 68% said that the most important function of the stick was to let other people know so that they could help.

For rigid sticks, as for collapsible ones, the proportion saying the most important function of a stick was to detect obstacles was highest for those

who had least residual sight and decreased with each category of better residual sight. For those who could not see windows, 69% said the most important function of the rigid stick was to detect obstacles. This compares with 16% of those who used a rigid stick but could see a cyclist on the other side of the road. For both of the other functions of a stick the proportion increased with increasing residual sight. Thus there is a trend for those with less residual sight to make use of this stick to obtain information about their environment.

TABLE 9.10
The Most Important Function Of A Stick by Type of Main Stick
Used and Amount of Residual Sight

The Most Important Function of A Stick	Aged 16-64								
	Main stick is collapsible				Main stick is rigid				All stick users
	Cannot see windows	Can see windows but no more	Can see more but not a cyclist	Can see cyclist	Cannot see windows	Can see windows but no more	Can see more but not a cyclist	Can see cyclist	
	%	%	%	%	%	%	%	%	
As a support	1	—	2	2	17	14	24	44	10
To detect obstacles	53	56	44	30	69	56	44	16	50
To let people know	46	44	54	68	14	30	32	40	40
	100	100	100	100	100	100	100	100	100
Base	101	72	113	50	112	59	60	26	608*

*This total includes some cases for which type of stick was unknown.

During the section of the interview that was related to sticks we asked each person who used a stick for getting about whether or not he thought his stick was the right length for him. We had already, by this stage, measured the length of the stick. We then asked each informant, even if he did not have a stick, if he would stand up so that we could measure the distance from his elbow to the ground.

Our interest in the lengths of sticks related to the person's height and whether or not the individual thought his stick was the right length was engendered by the introduction in this country, at an experimental level, of the American long cane technique. This American technique involves the use of a cane which is appreciably longer than an ordinary walking stick. The length of the stick required by each person being established either by the distance of their elbow from the ground, or from the tip of the sternum to the ground. The technique involves a systematic search with this cane which is long enough to touch the ground about one step in advance of the blind person. Thus a blind person can learn an appreciable amount about the path ahead of him and can therefore travel more safely and efficiently both indoors and out of doors. As yet this long cane technique, as we have said, is only in its infancy in this country.

In the next few tables we present the data about the sticks that different people are using at present. Firstly we show the distribution of stick lengths.

TABLE 9.11
Distribution of Stick Lengths by Sex

<i>Length of Stick (inches)</i>	Those Who Use a Stick -			
	Aged 16-64		Aged 65-79	
	Male	Female	Male	Female
	%	%	%	%
Up to 30 ins.	1	3	3	3
31-32 ins.	4	4	6	10
33 ins.	17	49	24	42
34-35 ins.	12	7	13	13
36 ins.	59	35	48	31
37-38 ins.	4	1	5	1
39 ins. or more	3	1	1	—
	100	100	100	100
Base	383	225	125	151

There are two standard lengths of sticks, 33" and 36". Over 70% of the sticks were of these standard lengths. Most of the men had the longer rather than the shorter stick. The women were more evenly divided between the two standard lengths.

In Table 9.12 we show the distribution, for men and women separately, of the distance from the elbow to the ground. When one compares this distribution with that of the present stick length it is obvious that the sticks which people are using vary very much relative to the distance of the elbow from the ground. The distribution of this difference is shown in Table 9.13. The variation is quite large, and one finds that a small proportion of women have a stick which, for them, is approaching the dimensions of a long cane.

TABLE 9.12
Distribution of the Measurement from the Elbow to the Ground by Sex

<i>Distance from Elbow to Ground</i>	Aged 16-64		Aged 65-79	
	Male	Female	Male	Female
	%	%	%	%
Up to 36 ins.	1	11	2	19
37 ins.	2	8	2	13
38 ins.	4	16	8	13
39 ins.	7	16	8	23
40 ins.	13	21	13	14
41 ins.	14	17	16	9
42 ins.	18	7	18	5
43 ins.	16	2	12	3
44 ins.	11	2	9	1
45 ins.	6	—	5	—
46 ins.	4	—	4	—
47 ins. or more	4	—	3	—
	100	100	100	100
Base	587	425	159	235
Not measured	15	17	7	19
Total	602	442	166	254

TABLE 9.13
The Difference Between the Length of the Stick and the Distance to the Elbow

<i>Length of Stick Subtracted From Distance of Elbow From the Ground</i>	Those Who Use a Stick			
	Aged 16-64		Aged 65-79	
	Male	Female	Male	Female
	%	%	%	%
Less than 3 ins.	3	14	6	15
3 ins. less than 6 ins.	26	39	24	45
6 ins. less than 9 ins.	45	42	50	32
9 ins. less than 12 ins.	24	5	16	6
12 ins. or more	2	—	4	2
	100	100	100	100
Base	383	225	125	151

With this considerable variation in relative length of stick to person, it is of interest to examine the results of the question asked about whether the informant felt his stick was the right length. Despite the great variation, over 85% of those who use a stick said that it was the right length.

TABLE 9.14
Whether the Length of the Stick Was Felt to be the Right Length, by Sex

<i>Whether Stick Was Felt To Be the Right Length</i>	Those Who Use a Stick			
	Aged 16-64		Aged 65-79	
	Male	Female	Male	Female
	%	%	%	%
Right length	86	86	93	90
Stick too long	4	7	2	6
Stick too short	10	7	5	4
	100	100	100	100
Base	383	225	125	151

Further analysis showed that among those who had sticks which approximated in length to long canes a comparable proportion said their sticks were the right length. This suggests that people adjust to such things as stick lengths and find acceptable that which they are used to. It would also suggest therefore, that with training and use, blind people would be able to adjust to using a stick which, at first, might feel rather unfamiliar.

By using a walking stick a blind person can obtain a certain amount of information about his environment. By using the long cane technique even more information can be obtained. Although this new technique requires training, it would appear that the long cane technique is sufficiently simple to be a potential method for a large number of blind people. We have already seen that half of those aged 16-64 who use a stick at present say that the most important function of their stick is to detect obstacles. If one

assumes that these people would be favourably disposed to learning how to detect obstacles more efficiently, then one would immediately have a demand for about 7,000 long canes. We are in no way suggesting that this is the full size of the demand but merely illustrating the size of one group which one may suppose would be positively interested.

9.2 GUIDE DOG OWNERS

One way in which a person may achieve a considerable level of mobility, independent of a sighted person, is through being trained to use a Guide Dog. The training of both the dog and the blind person is a highly skilled process. Both the dog and the blind person have to pass through thorough screening for suitability. The type of blind person most suitable for such training is someone who has very restricted residual sight but who is otherwise physically fit. These attributes are best because the training involves the blind person being dependent on the dog as far as vision is concerned but requires the trainee to be fit enough to cope with the strenuous training and with the use of the dog after training. The dogs best suited to this work are the larger breeds (often Labradors) and they walk at about 3 to 3½ miles an hour.

The number of registered blind people who had Guide Dogs at the time of interview was of the order of 3% of those blind and under 65 years of age. Among the 1,044 blind people in the age range 16-64 who were interviewed there were 34 people who had Guide Dogs, and a further 13 who said they had had one at some time but not at the time of interview. Since having a Guide Dog is a fairly rare occurrence our sample only yields a small group of Guide Dog owners and so the numbers are not large enough to do any very detailed analysis about the particular uses made of this service. We did not therefore ask the Guide Dog owners many questions specifically about dogs although, of course, we did obtain information about the pattern of travelling during the week preceding the interview.

Despite the small numbers of Guide Dog owners in the sample it is possible to show that they are considerably more mobile, independent of

TABLE 9.15
Time Spent Travelling on Foot Without a Sighted Person,
Comparing Guide Dog Owners to Those Without Guide Dogs

<i>Time Spent Travelling On Foot During A Week Without a Sighted Person</i>	Aged 16-64	
	Those Who Travelled on Foot Without a Sighted Person	
	Guide Dog Owners	Those Without Guide Dogs
	%	%
Less than 4 hours	32	75
4 hours less than 7 hours	24	15
7 hours or more	44	10
	100	100
Base	34	615

a sighted person, than other groups of blind people. All of the 34 people who had Guide Dogs went out on foot during the week, without being accompanied by a sighted person. Thus the proportion who went out unguided is higher than for any of the groups of blind people discussed in section 6.0. The proportion far exceeds the general level of unguided travel among blind people with a similar degree of blindness and in fact exceeds the level of unguided travel amongst the youngest age group with the most residual sight (see Tables 6.1 to 6.7).

Furthermore Guide Dog owners spent considerably longer travelling on foot without a sighted person than did other blind unguided travellers.

Although the Guide Dog owners are few in numbers there is no doubt that blind people with Guide Dogs are considerably more mobile, independent of a sighted person, than those who sometimes travel without a sighted companion but without the aid of a Guide Dog.

When examining the characteristics of those who had Guide Dogs we found a curious difference in the sexes in the amount of residual sight they had. The male Guide Dog owners were predominantly in the sight group of those who could not see the windows, whereas female Guide Dog owners were more evenly distributed between those who could not see the windows and those who could see the windows but no more. The group of Guide Dog owners we examined was very small but it would be of interest to know whether this difference in residual sight between the sexes is general among Guide Dog owners.

Of the thirteen people who had had a Guide Dog but did not have one at the time of interview, three had given up the dog because of health reasons, five had not pursued retraining when their dog died, four had difficulties with the dog away from the training centre and one was keeping an old Guide Dog as a pet, but felt that he would probably retrain with another Guide Dog when his pet dog died.

9.3 POTENTIAL GUIDE DOG USERS

There are many factors which need to be taken into consideration when contemplating training a blind person to use a Guide Dog. In addition to those mentioned earlier (i.e. very restricted residual sight and good physical fitness) there are many personal and environmental characteristics which have to be examined. Potential trainees are assessed individually case by case, by the staff of the Guide Dogs for the Blind Association, taking into consideration the needs of the person, the family situation, the facilities for keeping a Guide Dog and the personality of each individual.

The vast majority of the sample of blind people interviewed were not Guide Dog owners and never had been. From this large group we wanted to ascertain which people might possibly be suitable for the training. Although it is not possible in an interview situation to assess the very personal characteristics on which selection for training is based, it was possible to obtain information about residual sight and physical fitness. We selected a group of people who met several basic sight and fitness criteria and confined our questions about Guide Dogs to these people so as not to raise any false hopes among those for whom having a Guide Dog was not remotely possible.

There were five requirements which had to be met before we considered that a person might possibly be suitable for Guide Dog training. He (or she) would have to be under 65 as training is not given to people older than this and, in fact, is not often given after the age of 55. As far as residual sight was concerned he would have to be within one of the following three groups (i) could not see the windows, (ii) could see the windows but no more, (iii) could see more than this but could not see a lamp post five paces ahead. A blind person using a Guide Dog needs to have good balance and to be able to make use of his hearing to locate himself in relation to the traffic. One of the requirements to be met was, therefore, that the individual did not say that he wished people would generally speak louder to him. For general fitness we used the information obtained about how long a person would be prepared to walk along a pavement, with a sighted friend, at a brisk pace. Only those who said they would do so for half an hour or more were included in the group who might be suitable for training. Finally we excluded all those people who were Guide Dog owners at the time of interview or who had been owners previously.

This sieving process was designed so that rather more people were selected than would probably be potential Guide Dog owners. The group could then be reduced by using information obtained about the characteristics of the actual Guide Dog owners who came into the sample.

Of those aged 16-64, 28% met all the five requirements specified for selection at the interview stage. Among this group there was one person who was waiting to go for training and 21 who had applied but had not been successful. Of these 21, 6 failed for health reasons, 4 were told they were too old, 4 withdrew their applications because of home responsibilities and conditions, 4 failed for reasons other than health and 3 had waited, having been told that other people were first. There remained 286 people who met the five requirements and who had not applied for a Guide Dog.

When we examined the characteristics of the 34 Guide Dog owners in the sample we found that some of the requirements which we had laid down in the interview situation were less restricting than those exhibited by the present Guide Dog owners. We therefore carried out the following additional selection processes.

The Guide Dog owners were practically entirely covered by the first two sight categories (i.e. cannot see windows, can see windows but no more) and so we excluded from the possible potential owners all those who fell into the third sight category (i.e. could see more than windows but could not see a lamp post five paces ahead).

We found, among the Guide Dog owners, a sufficient number of people with diabetes to show that this is not necessarily a bar to having a Guide Dog, but we found very few other additional disabilities. Therefore we rejected from our group of possible potential Guide Dog owners anyone who had a disability (other than diabetes) additional to blindness which prevented him from getting about.

All the Guide Dog owners said they would walk at a brisk pace for an hour or more, so we rejected from the potentials those people who had said that they would walk at a brisk pace for half an hour but not for an hour.

Finally when we examined the age at which the Guide Dog owners had their first dog we found that only very occasionally were the individuals so much as 50 years old. We therefore reduced the age limit of the possible potential owners from 64 years to under 50 years.

By imposing these more stringent requirements we sifted out a group of people who were as like the present group of Guide Dog owners as we could find. This reduced the group of possible potential Guide Dog owners to 58, the biggest reduction resulting from lowering the age limit. In the table below we show how these 58 people are distributed by age, sex and residual sight and compare this with the characteristics of the present Guide Dog owners, giving the age when they first had a Guide Dog.

TABLE 9.16
Possible Potential Guide Dog Owners Selected
on Physical Characteristics

Sex	Residual Sight	Age Now (or Age When Had a Guide Dog)			
		16-19	20-29	30-39	40-49
Male	Cannot see windows	1 (-)*	7 (3)	8 (5)	12 (4)
	Can see windows but no more	- (-)	1 (1)	3 (1)	6 (-)
Female	Cannot see windows	- (1)	- (2)	3 (-)	9 (3)
	Can see windows but no more	- (-)	3 (5)	2 (2)	3 (2)

*The figures in brackets are Guide Dog owners, 5 of the 34 were aged a little over 50 and do not therefore appear in this table.

At the time the survey fieldwork was done (October-December 1965) there were about 1,000 Guide Dog owners. The figures in the table showing possible potential Guide Dog owners represent somewhere in order of 1,350 individuals in the blind population. Ideally at this stage we would have liked to arrange for this group of possible potential Guide Dog owners to be tested for suitability on all accounts but this was not possible. We were not able, in the interview, to take account of things such as dislike of dogs, family circumstances or work circumstances, but by examining the reasons given for not applying for a Guide Dog we could obtain some idea of how many people were definitely in favour of the idea of having a Guide Dog or quite definitely against it. Of the 58 people concerned only 9 fell into either of these extreme categories; 3 people expressed a very strong desire to have a Guide Dog and 6 people said they disliked dogs. Since so few people fell into the extreme categories it is not possible to make any precise estimate of the potential demand for Guide Dogs. All that can be said is that the 49 people who were neither definitely in favour or definitely against having a Guide Dog correspond to a total in the country of something like 1,100 people. One thing is certain and that is that very few blind people are going to push themselves forward as potential Guide Dog owners,

and that the actual demand which materialises in the future will depend very much on the extent to which potential Guide Dog users are sought out and invited to apply if they are interested. It would be of interest to know the effect upon demand which would result from showing a group of possible potential Guide Dog owners round one of the training centres.

The reasons which people gave for not applying reveal some of the problems which they anticipate, but on the face of it many of these difficulties do not appear insurmountable. Some of the reasons given indicate that some people are deterred by misconceptions about the system. There are some cases where the individual anticipates difficulties at work or at home. There are others where people already have a pet dog, some of whom say that they would be interested in a Guide Dog once the pet dog dies. Some people mentioned as the main deterrent, the difficulty of the cost of keeping a large dog. Some people felt that it was unkind to use a dog for this purpose, while others said that other blind people were in greater need than they are. Some people in the country thought they were mainly for people in towns. Others thought they were only for people at work. Quite a number said they manage well enough without but it is difficult to ascertain whether these people are fully aware of the potentialities of travelling with a Guide Dog.

These examples give an indication of the problems which face blind people when they consider applying for a Guide Dog, but they do not give any indication of the level of unsatisfied potential. Only by selecting on physical criteria a group of possible trainees and then following up with the more detailed selection processes and providing training for those found to be suitable, can any proper estimate be made of the potential demand for Guide Dogs among the registered blind.

PART III – READING HABITS OF THE BLIND

10.0 READING METHODS AVAILABLE TO THE BLIND

A registered blind person can obtain information normally available through print, in four main ways: –

- (i) Using his residual sight with any low vision aids that help him.
- (ii) By having a sighted person read to him.
- (iii) By having the use of a Talking Book Machine.
- (iv) By learning to read embossed type (Braille or Moon).

This section shows the level at which these four methods are used, and the inter-relationships between the different methods. The individual methods will be discussed more fully later.

10.1 USE OF RESIDUAL SIGHT FOR READING PRINT

In section 3.5 we discussed the survey classification of residual sight useful for reading. This gives us an indication of the proportion of registered blind people who can read large print; it also gives an indication of the proportion of those who could read the large print test who in fact generally use their residual sight for reading print. Table 10.1 shows that 11% of those aged 16–64 and 7% of those aged 65–79 read the large print test and claimed that they read some ordinary print for themselves.

TABLE 10.1
Survey Classification of Residual Sight Useful for Reading

<i>Survey Classification of Residual Sight Useful for Reading Print</i>	Aged 16–64	Aged 65–79
	%	%
Cannot see windows	26	19
Can see windows but no more	17	23
Can see more but did not read large print test	33	42
Did read large print test: –		
(i) but does not generally read ordinary print	13	9
(ii) and does generally read ordinary print	11	7
	100	100
Base	1,044	420

Of those who succeeded in reading the large print test, i.e. 24% of those aged 16–64, and 16% of those aged 65–79, slightly less than half of the younger group and a fifth of the older group read it without any aid to vision, such as spectacles or a magnifying glass. If we consider only those who succeeded with our test, and who also said they generally read ordinary print, then the proportions reading our test without any vision aid are very similar to those just given. Since our interviewers encouraged informants to use any low vision aid they normally used for reading, we may deduce that only about 5% of all those aged 16–64, and 1% of all those aged 65–79

read ordinary print without a vision aid, such as spectacles or a magnifying glass.

10.2 USE OF A SIGHTED PERSON READING ALOUD

The next most accessible method of obtaining information from print is to get a sighted person to read aloud. The data we obtained about material being read aloud was in terms of three different types of publication—newspapers, magazines, and books. The questions were designed to cover the three kinds of publication separately since the material contained within each type is somewhat different and the demands made on the time of the sighted person vary also. We examined the data to see if there was any relationship between the extent of being read to by a sighted person and the amount of residual sight useful for reading which the registered blind person had.

The table shows that for all types of publication there is a trend for the amount of reading aloud to decrease where the amount of residual sight useful for reading is greater. This trend exists for both age groups, and is illustrated by looking at whether a newspaper is read aloud to those aged 16-64; 83% of those who could not see windows said that someone reads the newspaper aloud at least sometimes. This compares with 38% of the group who read the large print test and claimed to generally read some

TABLE 10.2
Whether A Sighted Person Reads Aloud by the Amount of Residual
Sight of the Registered Blind Person

<i>Whether a Sighted Person Reads Aloud</i>	Aged 16-64					
	Cannot see windows	Can see windows but no more	Can see more but did not read large print	Did read large print but does not generally read ordinary print	Did read large print and does generally read ordinary print	All
	%	%	%	%	%	%
Someone reads the newspaper						
Everyday	30	32	27	18	5	25
Sometimes	53	50	53	46	33	50
Never	17	18	20	36	62	25
	100	100	100	100	100	100
Someone reads magazines						
Regularly	8	5	4	2	2	5
Sometimes	28	28	22	21	11	23
Never	64	67	74	77	87	72
	100	100	100	100	100	100
Someone reads books						
Yes	13	11	10	9	4	10
No	87	89	90	91	96	90
	100	100	100	100	100	100
Base	271	176	344	135	110	1044*

Whether a Sighted Person Reads Aloud	Aged 65-79					
	Cannot see windows	Can see windows but no more	Can see more but did not read large print	Did read large print but does not generally read ordinary print	Did read large print and does generally read ordinary print	All
	%	%	%	%	%	%
Someone reads the newspaper						
Everyday	35	36	35	49	13	35
Sometimes	45	42	44	18	19	40
Never	20	22	21	33	68	25
	100	100	100	100	100	100
Someone reads magazines						
Regularly	5	5	2	3	—	3
Sometimes	30	24	20	25	7	22
Never	65	71	78	72	93	75
	100	100	100	100	100	100
Someone reads books						
Yes	8	6	9	10	3	8
No	92	94	91	90	97	92
	100	100	100	100	100	100
Base	79	97	170	39	31	420*

*These totals include cases for which sight categories could not be determined.

ordinary print for themselves. Thus there is a considerable variation in the use of a sighted reader with variations in residual sight.

10.3 USE OF A TALKING BOOK MACHINE

An extension of the principle of a sighted person reading aloud is the development of the Talking Book Library Service. This consists of a library of tapes of books. These can be played back, by the blind person, on a Talking Book Machine hired out by the Library. Until recently the machines have been in rather short supply and in the next table we examine whether there is any relationship between the amount of residual sight useful for reading and whether the blind person has the use of a Talking Book Machine.

Here we see a similar trend to that observed when a person is reading aloud. More of those with the least residual sight have Talking Book Machines than those with the most residual sight useful for reading. The proportion varies from 33% to 14% for the 16-64s and from 28% to 3% for the 65-79s. It is not possible to tell from the interview data whether this relationship is the result of natural selection or policy. If it were the result of policy it would seem likely that as well as those with the most severe sight restrictions, those people with additional disabilities which prevent them from getting about might also be more likely to have Talking Book Machines.

TABLE 10.3
Whether the Blind Person Has a Talking Book Machine by the
Amount of Residual Sight He Has

<i>Whether the Blind Person Has a Talking Book Machine</i>	Aged 16-64					
	Cannot see windows	Can see windows but no more	Can see more but did not read large print	Did read large print but does not generally read ordinary print	Did read large print and does generally read ordinary print	All
	%	%	%	%	%	%
Has one now†	33	30	21	16	14	24
Has had but not now	5	4	4	3	4	4
Has never had one	62	66	75	81	82	72
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	100	100	100	100	100	100
Base	271	176	344	135	110	1044*

<i>Whether the Blind Person Has a Talking Book Machine</i>	Aged 65-79					
	Cannot see windows	Can see windows but no more	Can see more but did not read large print	Did read large print but does not generally read ordinary print	Did read large print and does generally read ordinary print	All
	%	%	%	%	%	%
Has one now†	28	24	18	15	3	20
Has had but not now	5	3	1	3	3	3
Has never had one	67	73	81	82	94	77
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	100	100	100	100	100	100
Base	79	97	170	39	31	420*

†October-December 1965.

*These totals include cases for which the slight classification was unknown.

TABLE 10.4
Whether the Blind Person Has a Talking Book Machine by Whether
He Has Any Additional Disability Besides Blindness that Prevents
Him From Getting About

<i>Whether the Blind Person Has a Talking Book Machine</i>	Aged 16-64		Aged 65-79	
	Has no other disability	Has additional disability	Has no other disability	Has additional disability
	%	%	%	%
Has one now†	24	25	22	20
Has had but not now	4	4	4	2
Has never had one	72	71	74	78
	<hr/>	<hr/>	<hr/>	<hr/>
	100	100	100	100
Base	718	326	190	230

†October-December 1965.

From Table 10.4 it would not appear that there is any policy involved in the distribution of Talking Book Machines with regard to additional

disabilities. Since the use of a sighted reader varies with the amount of residual sight and is a method selected by the blind person, we feel that the similar trend exhibited with regard to Talking Book Machines is also the result of natural selection.

Further details about Talking Books are given in Section 11.0.

10.4 READING BY TOUCH

The closest alternative to reading by sight that is available to a blind person is to read by touch. There are two main systems of embossed type, Braille and Moon. Braille is a system of raised dots based on a six dot cell, different combinations of dots meaning different letters or combinations of letters. Moon is a system of raised shapes which, to some extent, resemble capital letters. Moon is a much easier system to recognise by touch and is much simpler to learn. Once Braille has been mastered, however, it has many advantages over Moon. It is quicker to read, less cumbersome and more reproducible. Also Braille can be written by the individual whereas Moon can only be produced mechanically.

Braille is in fact subdivided into two types, uncontracted and contracted. The former type is used in the elementary stages of learning. With uncontracted Braille one combination of dots stands for one letter of the alphabet. Thus there are 26 letter combinations to learn plus some punctuation signs and figure signs. A person learning Braille and finding it difficult to remember the combinations may continue with the simple type of Braille. Since a six dot cell system provides for 63 possible combinations those people who can cope with the extra learning process go on to learn combinations for common letter groupings and common words. This is called contracted Braille. The more complex system has the advantage that reading becomes quicker and the volume of paper needed to produce a book is reduced.

Although contracted Braille is more concise than uncontracted Braille, and both types of Braille are less cumbersome than Moon, there is still a considerable problem of volume and weight of books produced in even the most efficient embossed type. An ordinary novel may run to several volumes, all much larger than printed books, when it is transcribed into Braille.

The number of people who read Moon is rather small and although there is a section describing the results of our questions about Moon (section 13.0), in many of the more detailed analyses with regard to reading there were insufficient Moon readers to include separately and the analyses have been given for Braille readers only.

We asked all those who were interviewed whether they had ever had lessons or tried to teach themselves to read by touch. If they had we asked whether they had ever become good enough to read a magazine or book in the particular system which they had learned. We considered that those who had reached such a standard were "Braille (or Moon) Readers". Embossed type readers (as defined above) were asked further questions about their use of reading by touch and they were asked to participate in the embossed type reading test. The distribution of whether or not the person was a Braille or Moon Reader is given below.

TABLE 10.5
Whether the blind person was a Braille reader or a Moon reader
(a) Braille

<i>Whether the Blind Person is a Braille Reader</i>	Aged 16-64	Aged 65-79
	%	%
Never learned Braille	33	76
Learned but not good enough to read	27	13
Learned and got good enough to read	40	11
	<hr/> 100	<hr/> 100
Base	1,044	420

(b) Moon

<i>Whether the Blind Person is a Moon Reader</i>	Aged 16-64	Aged 65-79
	%	%
Never learned Moon	87	86
Learned but not good enough to read	7	7
Learned and got good enough to read	6	7
	<hr/> 100	<hr/> 100
Base	1,044	420

We examine in Table 10.6 whether reading by touch is associated with the amount of residual sight. The number who read Moon is so small that the analysis is done only for those reading Braille.

Except for those people who could not see from the light where the windows were, the distribution of Braille readers did not vary very much with the residual sight. There was a bit more variation in the older group than the younger group but this was not so marked or so consistent as had been the variations with other reading methods.

TABLE 10.6
Whether the Blind Person is a Braille Reader by the Survey Classification of Residual Sight Useful for Reading Print

<i>Whether the Blind Person Is a Braille Reader</i>	Aged 16-64					
	Cannot see windows	Can see windows but no more	Can see more but did not read large print	Did read large print but does not generally read ordinary print	Did read large print and does generally read ordinary print	All
	%	%	%	%	%	%
Never learned Braille	16	35	40	41	37	33
Learned but not good enough to read	26	29	28	27	26	27
Learned and got good enough to read	58	36	32	32	37	40
	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100
Base	271	176	344	135	110	1,044*

<i>Whether the Blind Person Is a Braille Reader</i>	Aged 65-79					
	Cannot see windows	Can see windows but no more	Can see more but did not read large print	Did read large print but does not generally read ordinary print	Did read large print and does generally read ordinary print	All
	%	%	%	%	%	%
Never learned Braille	54	78	85	69	93	76
Learned but not good enough to read	24	10	9	15	7	13
Learned and got good enough to read	22	12	6	16	—	11
	100	100	100	100	100	100
Base	79	97	170	39	31	420*

* These totals include cases for which the sight classification was unknown.

Learning to read Braille involves a great deal more personal effort and aptitude than any of the other methods discussed. Those who learn Braille do so under very varied conditions and at very different times of life. Those who are blind young learn it through a full time educational system, whereas those who lose their sight later in life have no such formal system through which to learn. The latter are, by reason of age, probably less adept, physically and mentally, at learning a completely new method of reading by touch. For these reasons it is likely that the age at onset of blindness has much greater association with whether a person is a Braille reader than the amount of residual sight. Table 10.7 shows the variation with age at onset of blindness.

For the age group 16-64 the proportion who had learned Braille and got good enough to read a newspaper or book decreases from 72% of those who were blind from birth to 3% of those blind after they were 60. It is obvious

TABLE 10.7
Whether the Blind Person is a Braille Reader by Age at Onset of Blindness

<i>Whether the Blind Person Is a Braille Reader</i>	Aged 16-64						
	Age at Onset of Blindness						
	Birth	1-19	20-29	30-39	40-49	50-59	60-64
	%	%	%	%	%	%	%
Never learned Braille	12	18	19	35	46	65	87
Learned but not good enough to read	16	25	33	40	34	24	10
Learned and got good enough to read	72	57	48	25	20	11	3
	100	100	100	100	100	100	100
Base	206	201	135	133	168	171	30
							1,044

<i>Whether the Blind Person Is a Braille Reader</i>	Aged 65-79				
	Age at Onset of Blindness				All
	Under 40	40-59	60-69	70-79	
	%	%	%	%	%
Never learned Braille	46	70	86	98	76
Learned but not good enough to read	19	18	11	1	13
Learned and got good enough to read	35	12	3	1	11
	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100
Base	72	121	137	90	420

that the age of onset of blindness is of very basic importance when considering who it is who reads Braille. As was said earlier those people who become blind before adulthood are likely to have had some formal teaching as part of their education. We asked all those who had learned Braille from whom they had learned it, and whether they had become good enough to read a newspaper or book in Braille. For the age group 16-64, 90% of those who had learned Braille at school said they had become good enough to read a book, whereas only 43% of those who had learned Braille, but not at school, claimed to have got good enough to read a book.

This section has shown that there are two major factors affecting the methods blind people use to obtain information that is usually available in print. Firstly there is the amount of residual sight useful for reading that the person has and secondly there is the age at which they became blind and whether any of their schooling was done after the onset of blindness.

The survey data show that blind people make use of what residual sight they have left and where residual sight is least they compensate most heavily by using substitute methods other than embossed type. Whether or not they make use of embossed type (Braille), on the other hand, is dependent to a very large extent on age at onset of blindness and whether they learned Braille at school.

Further details about Braille and Moon are given in sections 12.0 and 13.0.

11.0 TALKING BOOKS

11.1 THOSE WITH A TALKING BOOK MACHINE

The Talking Book Library provides an expanding service which is a substitute for the human sighted reader and to some extent for embossed type. Until fairly recently the service has been restricted by the supply of machines and there has been a waiting list. As we have already seen in Table 10.3 there is a strong association between the amount of residual sight and the proportion of people having Talking Book Machines. The overall proportion for the age group 16-64 is 24% who have machines. For the age group 65-79 the proportion having a machine is 20%. We show below how this proportion varies with sex.

TABLE 11.1
Proportion of Blind People Who Have a Talking Book Machine by Sex

<i>Whether the Blind Person Has a Talking Book Machine</i>	Aged 16-64			Aged 65-79		
	Male	Female	All	Male	Female	All
Has one now*	% 25	% 23	% 24	% 26	% 17	% 20
Has had but not now	5	3	4	5	1	3
Has never had one	70	74	72	69	82	77
	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100
Base	602	442	1,044	166	254	420

*October-December 1965.

Those people who had, in the past, had a machine but did not have one at the time of interview had mostly either sent it back because they did not feel that they used it sufficiently to warrant keeping it when there was a waiting list, or they had had the now obsolete disc type of machine, had given this up but had not had it replaced by a tape machine.

A somewhat higher proportion of men in the older age group have Talking Book Machines than women of this age. There did not, on examination, seem to be any great difference in distribution of machines with age except that for people under forty the proportion having Talking Book Machines was lower.

In an attempt to assess whether knowledge of the services available makes any difference to the proportion of people who have a Talking Book Machine we selected those blind people who had participated in group sessions together with others similarly handicapped. The three groups examined were those who had at some time been to a social or handicraft centre, those who had at some time been to a rehabilitation centre and those who were St. Dunstaners. The overall proportion of registered blind people who had a Talking Book Machine at the time of the interview was 24% of those aged 16-64. For those who had ever attended a social centre 28% had a Talking Book Machine. For those who had been to a rehabilita-

tion centre 37% had machines; and for the small group of St. Dunstaners aged 16-64 in our sample the proportion having a Talking Book Machine at the time of interview was 41%. It would appear, therefore, that knowledge of available facilities does have an influence.

11.2 THOSE WITHOUT A TALKING BOOK MACHINE

This section deals with those people who had never had a Talking Book Machine. The people in this category were asked whether they had ever made inquiries about the service and whether they had heard of the Talking Book Machine before.

TABLE 11.2
Whether Those Who Had Never Had a Talking Book Machine Had
Ever Made Inquiries About One

<i>Whether Any Inquiries Had Ever Been Made About Talking Book Machines</i>	Those Who Had Never Had a Talking Book Machine	
	Aged 16-64	Aged 65-79
Have previously made inquiries	% 13	% 9
Have never made inquiries: -		
(i) but have heard of Talking Books	66	44
(ii) and have not heard of Talking Books	21	47
	<hr/> 100	<hr/> 100
Base	748	322

Of those who had previously made inquiries approximately a quarter were actually on the waiting list*; another quarter felt, or had heard, or been told, that the cost would be too great; another quarter had been told that supplies were restricted, and most of the others had “talked to the Home Teacher about getting one”.

In view of the appreciable numbers who have a Talking Book Machine and the publicity that the Talking Book Service has received, it is perhaps surprising that such a large proportion of those who had never had machines said that they had not heard of them before, (21% for those aged 16-64 and 47% of those aged 65-79).

The interviewer gave a brief explanation of the Talking Book Service to those people who said they had not heard of it before, then all of those who had never had a machine and were not on the waiting list were asked if they thought they would apply for a machine. Of those aged 16-64 to whom this question applied 31% said they thought they would apply, 2% could not decide and 67% said they thought they would not. For the comparable group aged 65-79, 24% said they thought they would apply, 3% could not make up their minds and 73% said they thought they would not.

Those who had expressed the feeling that they would not apply for a Talking Book Machine were asked the reasons for this.

*October-December 1965.

TABLE 11.3
Reasons Given For Thinking They Would Not Apply for a
Talking Book

<i>Reasons Given For Thinking They Would Not Apply For a Talking Book*</i>	Those Who Thought They Would Not Apply For A Talking Book Machine	
	Aged 16-64	Aged 65-79
Do not like them, am not interested	28%	43%
Too busy, have no time	20%	9%
Have or prefer wireless	34%	35%
Have people to talk to, do not like being read to	6%	8%
Talking Books are for those who don't read Braille or Moon	23%	6%
Other people have more need of it; restricted supply	9%	4%
Worried about the expense of it	6%	6%
Could not handle a machine like that	1%	2%
In an institution; no electricity supply	6%	5%
Base	470	226

*Some people gave more than one reason.

It would seem from many of the reasons given that there is a considerable lack of knowledge about the present situation with regard to Talking Books. The supply is no longer very restricted, which means that today there is no need for some groups to feel that such a service is "not for them". In addition the cost of hiring a machine can be borne by the local authority if there is any difficulty over paying the £3 a year hire charge. Postage for returning tapes to the library is now free. Many of these reasons do not show an inherent dislike of the idea of the Talking Book. We feel therefore that the potential demand may be considerably higher than the proportion who said they thought they might apply.

For the age group 16-64, 31% of those without a machine and not on the waiting list said they thought they would apply. This represents over 5,000 blind people aged 16-64. This compares with nearly 6,000 who had machines at the time of the survey. Consequently if one bases one's estimate only on those expressing some interest in applying there would appear to be an unsatisfied demand nearly as large as the number of library users at the time of the survey. However we think that the reasons given by those who said they would not apply are based on ignorance to some extent. We feel therefore that the tentative estimate made above is definitely an under estimate. We would also point out that this is for the age groups 16-64 only. There is nothing to suggest that those aged 65-79 would not be equally heavy users and, indeed, that those over 80 may well also be interested in Talking Books.

11.3 AMOUNT TALKING BOOK MACHINES ARE USED

All those people with a Talking Book Machine were asked whether they had a tape to put on the machine at the time of interview. A very large proportion of those with machines had got tapes for them, 90% of those aged 16-64 and 96% of those aged 65-79. This may be contrasted with the 65% of library members aged 16-64 who had a book. In addition to whether

or not they had a tape for the machine the interviewer asked how many books had been "read" during the last six months. Some people had not had the machine for as long as six months, in which case we computed a rate for six months based on the number they had read since they had had the machine.

TABLE 11.4
Reading Rate for Books Read on the Talking Book Machine Based
on the Previous Six Months

<i>Reading Rate of Books per Month on the Talking Book Machine*</i>	Those With Talking Books	
	Aged 16-64	Aged 65-79
None	% 4	% —
Less than 1 a month	15	4
1 a month less than 2	26	21
2 a month less than 3	18	17
3 a month or more	37	58
	<hr/> 100	<hr/> 100
Base	254	81

*Based on the reading done in the previous six months.

Not only do the vast majority of Talking Book Machine users have a tape to put on their machine but the rate at which books are read by this method is high; 37% of those aged 16-64 who have a machine and 58% of those aged 65-79 who have a machine had read at least three books a month over the last six months. This is much higher than the reading rate of books in embossed type (see Table 15.3).

The rate of reading Talking Books is higher among those aged 65-79 than among those aged 16-64. We have no data about the reading rate of books for those people who have a Talking Book and are aged 80 years or more, but the data we have suggests that the use of and appreciation of Talking Book Machines is not limited by age. In fact the reading rates suggest that the Talking Book is of particular value at a time when general health and activeness is likely to be on the decline.

We investigated a number of variables in relation to the number of Talking Books read in the last six months. We found that the distribution of the number of books read was identical for men and women and that the amount of residual sight made little difference except within the small group of those who had a Talking Book Machine and had been able to read the large print test by sight. Here the proportion who read at a rate of more than three Talking Books a month was somewhat lower than general.

We also examined whether or not those who had tried to learn to read Braille but had failed to get good enough to read a book made any more use of a Talking Book Machine than those who had never learned the system or those who had learned it and said they had become good enough to read a book. Table 11.5 shows that for those who had tried at Braille but failed, the proportion who read at a rate of three Talking Books a month was considerably higher than the comparable proportion within the other groups (48% compared with 34% and 32%).

TABLE 11.5
Reading Rate for Talking Books by Whether or Not the Blind
Person Has Learned Braille

<i>Reading Rate of Books per Month on the Talking Book Machine*</i>	Aged 16-64			
	Those With Talking Book Machines			
	Never learned Braille	Learned but not good enough to read	Learned and got good enough to read	All
	%	%	%	%
None	2	4	6	4
Less than 1 a month	18	10	16	15
1 a month less than 2	20	18	32	26
2 a month less than 3	26	20	14	18
3 a month or more	34	48	32	37
	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100
Base	61	74	119	254

*Based on the reading done in the previous six months.

There is little doubt from the data collected about Talking Books and the amount they are used that there is a considerable potential demand for this method of reading.

12.0 BRAILLE

12.1 LEARNING TO READ BRAILLE

All the people interviewed were asked whether they had ever had lessons in Braille or taught themselves, and if so, whether they had become good enough at it to read a newspaper or book in Braille. Those who did get this far were called Braille "readers" and were later to be asked to read a passage in Braille. Table 13.1 shows what proportion of each sex, for each age group were Braille "readers".

TABLE 12.1
Whether the Blind Person is a Braille Reader by Sex

<i>Whether the Blind Person is a Braille Reader</i>	Aged 16-64			Aged 65-79		
	Male	Female	All	Male	Female	All
	%	%	%	%	%	%
Never learned Braille	28	41	33	67	83	76
Learned but not good enough to read	30	23	27	19	8	13
Learned and got good enough to read	42	36	40	14	9	11
	100	100	100	100	100	100
Base	602	442	1,044	166	254	420

Table 12.1 shows that 40% of the 16-64s and 11% of the 65-79s claimed that they had learned Braille and become good enough to read a newspaper or book. A very large proportion of those aged 65-79 (76%) had never learned Braille. For those aged 16-64 a third had never learned Braille and over a quarter had learned but when asked if they had got good enough at it to read a newspaper or book said "no". The proportion who had never learned Braille was higher among women than among men. These results about Braille show that there are two groups, of considerable size, one comprising those who have never learned Braille and the other those who have tried to learn but never became good enough to read a book.

In Tables 10.6 and 10.7 we have already shown the variations in the proportion of Braille readers according to the amount of residual sight useful for reading print and the age at onset of blindness. We concluded that whether or not a person had learned Braille was not highly associated with residual sight but was very highly associated with the age at which he became blind, and that a much higher proportion of those who learned Braille at school were successful at it than the proportion who were successful and had learned Braille elsewhere.

We continue in this section to look at the variations in the proportion of Braille readers for other characteristics. Since the proportion of those aged 65-79 who are Braille readers is so small the following tables only include those aged 16-64.

The first characteristic we examine is the present age of the individual. Whenever there is an association between age at onset of blindness and something such as reading Braille then there will always be an association with present age since those who are now under 40 are, necessarily, people fairly young at onset of blindness. Thus the variation shown in Table 12.2 reflects the effect of age at onset which we have already discussed.

TABLE 12.2
Whether the Blind Person is a Braille Reader by Age

<i>Whether the Blind Person Is a Braille Reader</i>	Aged 16-64				
	16-39	40-49	50-59	60-64	All
	%	%	%	%	%
Never learned Braille	16	19	36	53	33
Learned but not good enough to read	22	33	28	25	27
Learned and got good enough to read	62	48	36	22	40
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
Base	192	228	350	274	1,044

We consider next the proportion of Braille readers with respect to whether the blind person had been on a rehabilitation course. This gives us an opportunity to look at three distinctly different groups, whose opportunities for learning Braille have been very different. Firstly there are those who were blind before 16 years old who would on the whole come under the influence of special education rather than rehabilitation. Secondly, there are those who have been on a rehabilitation course. The rehabilitation courses were of about three months duration or more. A large proportion of the people having been on such a course will have been to the rehabilitation centre which specialises in dealing with blind persons who are potential contributors to the labour force. This will therefore be a highly selected group of blind people. The third group is made up of those who, although blind after 16 years of age have not been on such a rehabilitation course.

TABLE 12.3
**Whether the Blind Person is a Braille Reader by Whether He
Had Been On a Rehabilitation Course**

<i>Whether Blind Person Is a Braille Reader</i>	Aged 16-64			
	Blind before 16 (not eligible for rehabilitation)	Had been on a rehabilitation course	Had not been on a rehabilitation course	All
	%	%	%	%
Never learned Braille	14	3	58	33
Learned but not good enough to read	17	49	27	27
Learned and got good enough to read	69	48	15	40
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
Base	373	175	496	1,044

Those who were blind before 16 will be mainly cases who received special education as blind persons and the results for this group are consistent with those obtained in the table showing age at onset (Table 10.7). All those who go on a rehabilitation course are taught Braille except where it is felt to be an unsuitable method for the individual. Thus there is only a small proportion of people never having learned Braille in the second column of Table 12.3. There is, however, a very high proportion who although they learned Braille said in the interview that they did not get good enough to read a Braille newspaper or book. This is probably a reflection of the fact that although a three months rehabilitation course provides regular and intensive formal learning, three months may not be long enough for some people to reach a sufficient standard to be able to read at all fluently and once away from the centre they may not persevere.

Nevertheless the proportion who had been on a rehabilitation course and become capable of reading a Braille book (either while they were on the course or subsequently) is much higher than the comparable proportion among those who had not been on such a course. There are two factors contributing to this. Firstly those who go on rehabilitation courses are a selected group and are probably more capable of learning Braille; secondly the amount of intensive formal teaching that can be done during a three month course is much greater than the amount of tutoring that can be achieved within the home visiting system.

We asked all those who were interviewed whether they would be prepared to go on a course to learn a completely new way of reading. The method we had in mind was a reading machine but this has not yet been developed far enough to be put into operation generally. We found that those who already had some ability were more enthusiastic about learning something more and improving their standards than those who had not. Thus a higher proportion of those who did not want to go on a course for reading were people who had never learned Braille.

TABLE 12.4
Whether the Blind Person is a Braille Reader by Whether He
Would Want to go on a Reading Course

<i>Whether the Blind Person Is a Braille Reader</i>	Aged 16-64			
	Would not want to go on a reading course	Would go for one month	Would go for three months	All
Never learned Braille	% 38	% 24	% 23	% 33
Learned but not good enough to read	25	30	31	27
Learned and got good enough to read	37	46	46	40
	100	100	100	100
Base	682	114	233	1,044*

*This total includes some cases for whom the reading course data was unknown.

12.2 REASONS FOR NOT LEARNING BRAILLE

One third of those aged 16-64 and over three quarters of those aged 65-79 said they had never learned Braille. We asked these people what the reasons were for not having learned the system. The table below shows the reason which were given. We have grouped them into two classes, differentiating between those reasons which we feel are probably insurmountable and those which are probably not and which may in fact be given by people who are potential Braille readers.

TABLE 12.5
Reasons Given for Not Having Learned Braille

Reasons For Not Having Learned Braille†	Aged 16-64	Aged 65-79
(i) <i>Probably insurmountable</i>		
Too old	11%	39%
Hands not sensitive enough	10%	6%
Too nervous, ill, worried	7%	5%
Would not be able to learn; too complicated	6%	7%
No need, eyesight sufficient for what I need	17%	9%
Have learned Moon	6%	5%
(ii) <i>Possibly surmountable</i>		
Never bothered, not interested, too busy	29%	24%
Never was much of a reader	8%	7%
Hope sight will improve	4%	—
Sight only recently deteriorated	3%	4%
Never heard of Braille	1%	1%
Never had the opportunity	12%	15%
Base	346	322

†Some people gave more than one reason.

12.3 ATTEMPTING BRAILLE

We divided those who had learned Braille into those who had learned at school and those who had learned elsewhere. We then examined the length of time over which regular lessons had been received.

TABLE 12.6
Length of Time Over Which Received Regular Lessons in Braille
By Whether or Not Taught at School

<i>Length of Time Over Which Received Regular Lessons in Braille</i>	Aged 16-64		
	Those Who Had Learned Braille		
	Taught at school	Not taught at school	All
	%	%	%
Up to 3 months	3	50	34
Over 3 months to 6 months	4	21	15
Over 6 months to 12 months	4	11	8
Over 12 months	89	18	43
	100	100	100
Base	245	453	698

The division between those taught at school and those taught elsewhere has been made on the grounds that the situations are basically very different. Learning at school is not only more formal but it may also involve learning to read for the first time. A very high proportion (50%) of those taught, other than at school, had regular lessons for three months or less.

Table 12.7 shows the distribution of the proportion who became good enough to read a book in Braille according to whether they were taught Braille at school or elsewhere. These figures have already been quoted in Section 10.4.

TABLE 12.7
The Proportion of Those Learning Braille Who Became Good Enough to Read a Book, by Whether or Not They Were Taught Braille at School

<i>Whether Became Good Enough to Read a Braille Book</i>	Aged 16-64		
	Those Who Had Learned Braille		
	Taught at school	Not taught at school	All
	%	%	%
Learned Braille but did not get good enough to read a book	10	57	41
Learned Braille and got good enough to read a book	90	43	59
	<u>100</u>	<u>100</u>	<u>100</u>
Base	245	453	698

Of those who learned other than at school, only 43% claimed to have become good enough to be able to read a Braille book, whereas for those who learned at school 90% got good enough to read a Braille book.

We examine next the length of time which elapsed between being registered blind and beginning to learn Braille for those who learned the system other than at school. For the majority the length of time between being registered and starting to learn Braille was six months or less, there was also a group of people who started learning Braille before they were

TABLE 12.8
Length of Time That Elapsed Between Registration and Starting to Learn Braille for Those Who Were Taught Other Than at School

<i>Length of Time That Elapsed Between Being Registered and Starting to Learn Braille</i>	Aged 16-64
	Those who learned Braille but were not taught at school
	%
No answer given	3
Started before registration	8
Up to 6 months	54
Over 6 months up to 1 year	8
Over 1 year up to 5 years	15
Over 5 years	12
	<u>100</u>
Base	453

registered. Over 10% of people who learned but not at school, started to learn Braille over five years after they had been registered.

TABLE 12.9
Length of Time It Took Braille Readers to Get Good Enough to
Read a Book in Braille

<i>Length of Time It Took To Get Good Enough to Read a Braille Book</i>	Aged 16-64		
	"Braille Readers"		
	Taught at school	Not taught at school	All
	%	%	%
Could not remember	7	6	6
Up to 3 months	7	32	19
Over 3 months to 6 months	11	23	17
Over 6 months to 12 months	16	18	17
Over 12 months	59	21	41
	100	100	100
Base	220	195	415

Table 12.9 shows how long it took the Braille readers to become good enough to be able to read a book and reflects the difference between learning at school and learning elsewhere. At school it is part of a formal system of education which includes learning to read for the first time. Learning elsewhere does not have the formal knowledge and usually has the basis of having learned to read by sight and now having to change systems.

12.4 AMOUNT OF BRAILLE READ

Table 12.10 shows a whole series of facts about the use of Braille, whether the Radio Times is obtained in Braille, whether any Braille magazines are taken, whether Braille is written, and whether the person is a member of the National Library for the Blind. Throughout there is a different level of use made by those taught at school and those taught elsewhere.

We asked those Braille readers who were members of the National Library for the Blind how many Braille books they had read over the previous six months. From this we calculated a rate of book reading and this is shown in Table 12.11. Here again those who were taught Braille at school exhibit a greater usage of Braille than those taught elsewhere.

TABLE 12.10
The Use Made of Braille by Braille Readers

<i>Usage Made of Braille</i>	Aged 16 - 64		
	"Braille Readers"		
	Taught at school	Not taught at school	All
	%	%	%
Do you take the Radio Times in Braille?			
Yes	40	22	31
No	60	78	69
	<hr/> 100	<hr/> 100	<hr/> 100
Do you take any Braille Magazines?	%	%	%
Yes	43	37	40
No	57	63	60
	<hr/> 100	<hr/> 100	<hr/> 100
Can you write Braille?	%	%	%
Yes	97	74	86
No	3	26	14
	<hr/> 100	<hr/> 100	<hr/> 100
Have you ever belonged to the National Library?	%	%	%
Yes, now	44	36	40
Yes, but not now	27	24	26
Never	29	40	34
	<hr/> 100	<hr/> 100	<hr/> 100
Base	220	195	415

TABLE 12.11
The Braille Book Reading Rate per Month for National Library
Members by Whether or Not They Learned Braille at School

<i>Braille Book Reading Rate per Month for National Library Members*</i>	Aged 16-64		
	Braille Readers Who Are Members of the National Library		
	Taught at school	Not taught at school	All
	%	%	%
None	15	29	20
Less than 1 a month	27	41	33
1 a month less than 2	27	13	21
2 a month less than 3	14	6	11
3 a month or more	17	11	15
	<hr/> 100	<hr/> 100	<hr/> 100
Base	96	71	167

*Based on the previous six months reading.

Additional material about the usage of the National Library can be found in section 15.0.

12.5 TYPE OF BRAILLE DOT

There are two ways of producing the dots of the six dot cell system of Braille. The long established system of the embossed dot involves punching from the reverse side of the paper in order to produce raised dots on the right side. This is like pricking a piece of paper with a pin and then feeling the raised surface. The implement used for punching is not sharp ended so that the paper is not punctured by the process. The dots thus made are hollow and with use may be pushed down. A modern way of manufacturing Braille is to fix solid dots of plastic onto the surface of the paper to form the raised surface needed for reading Braille. These dots, being solid, will not be pressed down by use but may, with heavy handling, get prised off. The main advantage of the modern method is that since the dot is not going to be formed by punching the paper, very much lighter paper can be used than is the case with the embossed dot. This results in a reduction of the weight and volume of Braille publications.

To obtain data about these dots we asked all those people who were Braille readers to feel two sets of Braille dots and to say which they preferred. One was the embossed variety and the other was the solid dot. The great majority (75%) preferred embossed dots, 17% preferred solid dots and 8% said there was no difference. As we shall see later (Table 17.8) there is an overwhelming preference for embossed dots among the fastest readers. We asked those people who preferred embossed dots why this was so and 86% of them said that embossed dots were easier to feel and therefore easier to read. This indicates that if the modern method of production is going to be introduced on a large scale many of the Braille readers will have to go through a process of adjustment to the new system.

13.0 MOON

13.1 LEARNING TO READ MOON

A section of questions rather similar to those about Braille were asked about Moon. The number of people learning to read Moon is very small and this limits the number of analyses that are feasible.

Of those aged 16-64, 11% had had lessons in Moon and a further 2% had taught themselves. Of those aged 65-79, 13% had had lessons in Moon and a further 1% had taught themselves. We asked those who had tried the system whether they had got good enough to read and understand a Moon magazine or book, with the following results.

TABLE 13.1
Whether the Blind Person is a Moon Reader

<i>Whether the Blind Person Is a Moon Reader</i>	Aged 16-64	Aged 65-79
	%	%
Never learned Moon	87	86
Learned but not good enough to read	7	7
Learned and got good enough to read	6	7
	<hr/> 100	<hr/> 100
Base	1,044	420

There were thus 65 people from the group 16-64 and 29 from the group 65-79 who said that they had become good enough to read a magazine or book in Moon. As many as 83% of this younger group of "Moon readers" and 76% of the older group said that they do not take any magazines in Moon. The reasons they gave for this were varied. In the younger group the reason most often given was that Moon was so cumbersome and many of the younger Moon readers preferred Braille. Other reasons given were lack of interest, or other interests and also a preference for the wireless, television, Talking Book and being read to.

We asked those people who had had lessons in how to read both Braille and Moon which system they started with. Seventy-four people in the younger group and 30 in the older group had had lessons in both Braille and Moon and in both groups the vast majority had started with Braille first.

The number of Moon readers was thus very small indeed and no further analyses were carried out on this group.

14.0 BRAILLE AND MOON READING TESTS

We wanted to obtain information about the reading speeds achieved by readers of embossed type. The only way to do this was to have a reading test as part of the reading section of the interview.

14.1 METHOD OF TESTING BRAILLE AND MOON READERS

The embossed reading test consisted of a passage of 225 words which had been transcribed into contracted Braille, uncontracted Braille and Moon. The test pieces had been mounted in a Braille magazine so that they would be easy for the interviewer to handle and so that the blind person could read while sitting in an easy chair. The lines of the passage were boldly numbered so that if the informant abandoned the reading test in the middle the interviewer would be able to note the line at which the informant stopped and the time taken that far.

All those who had said earlier in the interview that they were either a Braille or Moon reader, that is that they had become good enough at either Braille or Moon to be able to read a newspaper or book, were considered eligible for the embossed reading test. If the blind person read both Braille and Moon the interviewer inquired which the informant was better at and gave the test in that. For all those who were to be tested in Braille the interviewer asked whether the informant read the contracted or uncontracted form of Braille and was thus able to give the appropriate test.

Once it was established which test was appropriate the interviewer handed over the magazine, open at the right page, and asked the blind person if he would read the passage to himself, reading just the title and the words "the end" out loud so that she could time the reading. She also told the person that the passage was on two pages but that it was not necessary to turn over.

We wanted the passage read silently so that the speed we obtained was comparable to the rate at which the person normally read embossed type. We had, of course, to have the title and "the end" read aloud in order to be able to time the reading. At the pilot stage it was discovered that some of the slower readers preferred to read out loud. We therefore instructed the interviewers not to suggest that anyone should read out loud but to let anyone who chose to do so to carry on in this way.

As was said in the section on questionnaire design (Section 2.6) there were certain characteristics which the passage for this reading test required. It needed to be sufficiently simple for anyone who could read to be able to understand, it needed to be sufficiently long to enable us to time it for the quickest readers, but sufficiently short that the slow readers could manage to get through it; at the same time it needed to maintain the interest of young and old, male and female. A passage of 225 words was designed with these requirements in mind, and is given below.

Thursday Afternoon

Thursday afternoon I went to town and bumped into my old friend Alec. It must be nearly eighteen months since I last saw him. He told me that he and his wife have moved out of that old cottage down by the railway station and have now got a council bungalow in Green Street. He invited me round to tea so that he could show me his new home. When I arrived his wife took me inside to show me the kitchen. What a splendid kitchen it was, very modern indeed and decorated throughout in blue and yellow. She was naturally delighted to show me round and said how glad she was to have been able to move away from the old cottage because of the noise. After tea Alec showed me the garden. In front of the bungalow there was a lawn with a border of primroses and rose bushes, and at the back there was another lawn and then vegetables. The garden here was much bigger than the one Alec had had at the cottage but he is a keen gardener and was glad of the extra space. In general the garden at the bungalow was quite different from the one at the cottage except that Alec had managed to bring with him the old tumble-down gardening shed.

(225 words)

The End

Questions

- (a) Which old friend was met, what was his name? (Alec)
- (b) In what colours was the kitchen decorated? (Blue and Yellow)
- (c) What reason did the wife give for being glad to move from the old cottage? (Noise)
- (d) What had the husband brought with him from the garden of the old cottage? (Old tumble-down gardening shed)

Four simple questions were asked about the passage after it had been read. These were just to establish that the person had been able to read the embossed type sufficiently to get some sense out of the passage. If the questions were not answered straight away or were not correct the blind person was encouraged to go through the passage to find the answer.

14.2 READING SPEEDS ACHIEVED

We examine first of all what sorts of tests were required.

TABLE 14.1
Proportion of Each Sort of Embossed Reading Test Required

<i>The Sort of Embossed Reading Test Required</i>	Aged 16-64	Aged 65-79
	%	%
Do not read embossed type	57	84
Contracted Braille	33	8
Uncontracted Braille	4	1
Braille (grade unknown)‡	2	1
None	4	6
	100	100
Base	1,044	420

‡In these cases it was not established which grade of Braille was read.

Except for the group of contracted Braille readers aged 16-64 the groups of different tests required are very small indeed. Table 14.1 gives the distribution of those who were eligible for the reading test. Table 14.2 shows the proportion of those eligible who completed each sort of test.

TABLE 14.2
Proportion of Those Eligible Who Completed Each Sort of Reading Test

<i>Whether Test Completed</i>	Aged 16-64				Aged 65-79			
	Contracted Braille Test	Uncontracted Braille Test	Braille (grade Unknown)	Moon	Contracted Braille Test	Uncontracted Braille Test	Braille (grade Unknown)	Moon
	%	%	%	%	%	%	%	%
Completed	80	34	—	31	76	—	—	33
Abandoned	6	22	—	31	12	—	—	21
Not started	14	44	100	38	12	—	—	46
	100	100	100	100	100	—	—	100
Base	345	41	21	39	33	6	5	24

We were very much more successful at obtaining a completed test from contracted Braille readers than from any other group. Uncontracted Braille is generally read by either beginners or by people who have not progressed sufficiently to go on to the more complicated system of contracted Braille. Moon is read, on the whole, by people who could not manage the Braille system. Those who are just beginning to learn to read by touch and those who are not too sure of themselves at reading embossed type are more likely to be unwilling to perform such a test and this is certainly reflected in Table 14.2. All those readers who completed the passage were asked the four simple questions. In reading for pleasure it is not necessary for people,

TABLE 14.3
Whether Those Who Completed the Contracted Braille Test Were Able to Answer the Four Questions

<i>Number of questions correctly answered without looking up</i>	Those Who Completed the Contracted Braille Test	
	Aged 16-64	Aged 65-79
Not attempted	No. 3	No. 1
None	9	—
1	40	5
2	49	9
3	94	6
4	82	4
<i>Number of questions correctly answered with looking up if necessary</i>		
Not attempted	No. 3	No. 1
None	—	—
1	1	—
2	5	2
3	20	3
4	248	19
Total	277	25

whether they are sighted or not, to be able to retain sufficient information at a first reading to be able to answer questions. As we anticipated, quite a high proportion could not answer all the questions correctly without looking something up; but after being given the chance to go back to the passage almost everyone got all the answers correct. This demonstrated to us that those people completing the test were capable of reading and of

TABLE 14.4
Reading Speeds for Uncontracted Braille and Moon, Showing Completed and Abandoned Tests Separately

<i>Reading Speed in Words per Minute</i>	Aged 16-64				Aged 65-79	
	Uncontracted Braille Test		Moon Test		Moon Test	
	Abandoned*	Completed	Abandoned*	Completed	Abandoned*	Completed
	No.	No.	No.	No.	No.	No.
Less than 10	7	1	11	—	5	—
10 less than 20	2	4	1	7	—	5
20 less than 30	—	5	—	4	—	2
30 or more	—	4	—	1	—	1
Total	9	14	12	12	5	8

* Speed assessed by noting line at which test abandoned and time taken to that point.

TABLE 14.5
Reading Speeds for Contracted Braille, Showing Completed and Abandoned Tests Separately

<i>Reading Speed in Words per Minute</i>	Aged 16-64		Aged 65-79	
	Contracted Braille Test		Contracted Braille Test	
	Abandoned*	Completed	Abandoned*	Completed
	No.	No.	No.	No.
Less than 10	5	1	2	—
10 less than 20	9	15	—	2
20 less than 30	3	23	—	4
30 less than 40	1	23	1	4
40 less than 50	1	34	1	6
50 less than 60	—	19	—	—
60 less than 70	—	29	—	2
70 less than 80	—	20	—	1
80 less than 90	—	17	—	1
90 less than 100	2	11	—	—
100 less than 110	—	13	—	—
110 less than 120	—	9	—	4
120 less than 130	—	9	—	—
130 less than 140	—	6	—	—
140 less than 150	—	13	—	—
150 less than 160	—	9	—	1
160 less than 170	—	6	—	—
170 less than 180	—	3	—	—
180 less than 190	—	5	—	—
190 less than 200	—	5	—	—
200 or more	—	7	—	—
Total	21	277	4	25

*Speed assessed by noting line at which test abandoned and time taken to that point.

making sense of the passage. This was found to be true of each of the tests and we give the results of the contracted Braille test as an example.

In the next two tables we give the distribution of reading speeds for each of the embossed reading tests. The results are given for those who completed the test and for those who abandoned it. The first table deals with uncontracted Braille and Moon and the second deals with contracted Braille.

One of the aims of the reading test was to establish the level of reading speed at which the slowness would become intolerable and the reader would not persevere. Although the numbers for all tests except contracted Braille are rather small nevertheless it appears from Tables 14.4 and 14.5 that practically no-one completed the passage at under 10 words a minute, although there were people who completed it at a rate of between 10 and 20 words a minute. On the other hand the estimates of time taken for those readers who abandoned the test do come, to a large extent, within the group of under 10 words per minute. We would suggest, therefore, that there is sufficient evidence to infer that a reading speed of under 10 words a minute is found to be intolerable.

The contracted Braille reading test is the only test with sufficient numbers to carry on with any greater detail of analysis. The first obvious comment about the reading speeds of people reading contracted Braille is the very large range of speeds which occur. Although practically no-one read the passage at a speed of less than 10 words a minute the number of people who completed it at somewhere between 10 and 20 words a minute is quite appreciable. Any of the informants who read the passage at a rate of 15 words a minute took 15 minutes to read the passage of 225 words given earlier (section 14.1). It may here be of interest to note that a BBC newscaster reads at about 150 words a minute and would thus take less than two minutes to read this passage aloud. The greatest single group in these ranges of 10 words per minute speeds comprises the 34 people aged 16-64 who read the passage at between 40 and 50 words a minute; 35% of those who were aged 16-64 and completed the contracted Braille test read at less than 50 words per minute.

The spread of reading speeds for the Contracted Braille Test is so wide that we have summarised the data to make three groups of speeds, under 60 words per minute, 60-99 words per minute, and 100 or more words per minute.

Firstly we examine more closely one or two aspects of how the reading test was done. While the blind person was reading the passage in Braille the interviewer observed the hand movements, and recorded whether one hand was moving, whether two hands were moving together or whether two hands were moving with a scissor like motion. We show below the type of hand movement by the groups of different reading speeds. A few people in fact read the Braille Test not by touch but by sight.

There was, as anticipated a very strong relationship between the speed of reading and the type of hand movement observed; 41% of those who read at 100 words a minute or more were using two hands in a scissor like motion whereas only 4% of those reading at less than 60 words a minute were observed to use their hands in this way. Of those who were in this slowest speed group 73% had one hand moving only.

TABLE 14.6
Type of Hand Movement by Reading Rate in Words per Minute
for the Contracted Braille Test

<i>Type of Hand Movement Used to Read Braille</i>	Aged 16-64			
	Reading Speed in Words per Minute for Those Who Completed the Contracted Braille Test			
	Less than 60	60-99	100 or more	All who read test
	%	%	%	%
No hands*	—	3	7	3
One hand moving	73	42	15	47
Two hands moving together	23	48	37	34
Two hands moving in scissor motion	4	7	41	16
	100	100	100	100
Base	115	77	85	277

*In these cases the Braille Test was read by sight.

After the reading test passage had been read, four simple questions were asked to ascertain whether any sense had been made of the contents. All the readers were allowed to look up the answer if they could not remember or gave the wrong answer. We give below the proportion who gave all correct answers both without looking up and whether or not the answers were looked up, for the different reading speeds.

It is of interest to see that it was the slowest readers who had the highest proportion of all correct answers without looking up. The purpose of the questions was merely to make sure that the person could obtain information from a passage in Braille and consequently we did not wish to restrict the readers to a feat of comprehension after one reading. They were therefore encouraged to go back over the passage if necessary. The table shows that the vast majority did give the correct answers to the questions when given the opportunity for a second attempt.

In Section 12.5 we discussed the small test carried out on all Braille readers to see whether there was any preference for either of the two methods'

TABLE 14.7
Proportion of People Giving All Correct Answers by Reading
Rate in Words per Minute for Contracted Braille

<i>Results of Asking Four Simple Questions on the Reading Test Passage</i>	Aged 16-64			
	Reading Speed in Words per Minute for Those Who Completed the Contracted Braille Test			
	Less than 60	60-99	100 or more	All who read test
Proportion giving all correct answers with no looking up	35%	25%	27%	30%
Proportion giving all correct answers, whether looked them up or not	86%	91%	93%	90%

TABLE 14.8
Reading Speeds for Contracted Braille, Showing Preferences
Expressed for Embossed Dot and Solid Dot Braille

<i>The Type of Dots Preferred for Braille</i>	Aged 16-64			
	Reading Speed in Words per Minute for Those Who Completed the Contracted Braille Test			
	Less than 60	60-99	100 or more	All who read test
	%	%	%	%
Preferred embossed dots	68	78	82	75
Preferred solid dots	23	19	8	18
No difference	9	3	10	7
	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100
Base	115	77	85	277

of producing dots for Braille i.e. the embossed dot system which is the result of raising the surface of originally flat paper, and the solid dot system which involves superimposing plastic dots on to the surface of flat paper. Here we show how the preferences expressed vary according to the speed at which the contracted Braille was read in the reading test.

Three-quarters of those who completed the contracted Braille test said when asked that they preferred the embossed dot Braille. The proportion who preferred this kind of dot increased with increases in the speed of reading Braille.

14.3 CHARACTERISTICS OF THE FASTER READERS

The group of people aged 16-64 who completed the contracted Braille test (277) was large enough to divide by different reading speeds and examine the characteristics of the faster readers.

First we examine the variation within the different groups of reading speeds according to sex, age at onset of blindness and whether or not the person was taught Braille at school.

The fast readers contain a higher proportion of women than the other groups. The fastest speeds are very highly associated with early onset of blindness and having been taught Braille at school. Only 8% of those who reached a reading speed of 100 words per minute or more had not been taught Braille at school compared with 64% of those who read at under 60 words a minute. This underlines the great difficulties of learning a new, complicated system of reading once formal education is finished, and suggests that it is only when Braille is learned at an early age and used as a medium of education that the user achieves a level of performance which approaches a standard anywhere near comparable with reading print by sight.

We wanted to examine whether the speed of reading, or the lack of speed, was in any way associated with any feeling of limitation imposed, by blindness, on the number of books read. We show in Table 14.10 the proportion feeling that the number of books read is very much limited, according to the speed at which the contracted Braille test was read. The fast Braille readers felt much less limitation on book reading than did the

slower Braille readers; 61% of those who read at 100 words a minute or more felt that the number of books they read was limited very little by blindness; for those who read at under 60 words a minute only a third felt that the limitation was very little.

TABLE 14.9
Reading Speeds for Contracted Braille by Sex, Age at Onset of
Blindness and Whether or Not the Person Was Taught Braille at School

	Aged 16-64			
	Reading Speed in Words per Minute for Those Who Completed the Contracted Braille Test			
	Less than 60	60-99	100 or more	All who read test
	%	%	%	%
<i>Sex</i>				
Male	66	66	47	60
Female	34	34	53	40
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
<i>Age at Onset of Blindness</i>	%	%	%	%
At birth	21	49	58	40
From birth to 19 years	25	33	38	31
20 years old or more	54	18	4	29
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
<i>Whether Taught Braille at School</i>	%	%	%	%
Taught at school	36	76	92	63
Not taught at school	64	24	8	37
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
Base	115	77	85	277

TABLE 14.10
Reading Speeds for Contracted Braille, Showing the Extent to Which
the Number of Books Read is Felt to be Limited by Blindness

	Aged 16-64			
	Reading Speed in Words per Minute for Those Who Completed the Contracted Braille Test			
	Less than 60	60-99	100 or more	All who read test
	%	%	%	%
<i>Extent to Which the Number of Books Read is Limited by Blindness</i>				
Very much	33	22	21	26
To some extent	34	33	18	29
Very little	33	45	61	45
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
Base	115	77	85	277

15.0 THE NATIONAL LIBRARY FOR THE BLIND

The number of questions in the questionnaire which could be devoted to the amount of Braille or Moon reading was limited and so we concentrated our attention on the National Library for the Blind which has all kinds of books in Braille and Moon. We did not cover the use made of the Student's Library of the RNIB since this deals, for the most part, with specialist non-fiction books and any questions relating to it would have been applicable to a very small proportion of our sample.

All those people who said that they had got good enough at either Braille or Moon to be able to read a book (41% of those aged 16-64 and 16% of those aged 65-79) were asked whether they belonged to the National Library for the Blind.

TABLE 15.1
Proportion of Braille or Moon Readers
who belonged to the National Library

<i>Whether or Not Belong to The National Library for the Blind</i>	Braille or Moon Readers	
	Aged 16-64	Aged 65-79
Have never belonged	% 35	% 33
Have been a member, but not now	26	20
Am a member now	39	47
	<hr/> 100	<hr/> 100
Base	451	68

Those of the older group who had given up membership gave reasons of no longer being able to read, or the books being too cumbersome and bulky or not being much of a reader anyway. Those in the group 16-64 who had given up their membership gave, for the most part, the reason of being more interested in things other than reading or in using a Talking Book, Television or Radio and so on in preference to reading books from the library.

From the whole of the sample aged 16-64 (i.e. 1,044) we thus have 17% (176) who belong to the National Library for the Blind. From the older age group of 65-79 (i.e. 420) we have 7% (31) who belong to the National Library for the Blind. Of the 176 members aged 16-64, 163 read Braille books from the library and the others had Moon; of the 31 members aged 65-79, 21 had books in Braille and the rest had books in Moon. All of the members were asked if they had any books out from the library at the time of the interview; 65% of members aged 16-64 said they had and 80% of those aged 65-79 said they had.

We examined library membership and whether or not the library members had books out at the time of interview for those who completed the contracted Braille test. In this way we could ascertain whether those who read Braille

more quickly were more likely to make use of the library facilities. Table 15.2 shows that this is so. The proportion of those who read the test and belonged to the library rose from 44% of the slowest speed group to 68% of those who read at 100 words a minute or more; also a higher proportion of the faster readers had a book out from the library.

TABLE 15.2
Reading Speeds for Contracted Braille, Showing Membership of
the National Library for the Blind

<i>Whether the Blind Person Had Ever Beloged to the National Library for the Blind</i>	Aged 16-64			
	Reading Speed in Words per Minute for Those Who Completed the Contracted Braille Test			
	Less than 60	60-99	100 or more	All who read test
	%	%	%	%
Had never belonged	33	16	11	22
Had belonged, but not now	23	32	21	25
Is a member now*	44	52	68	53
	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>
Base	115	77	85	277
Proportion of present members who had a book from the library at the time of interview	59%	56%	78%	66%

*October-December 1965.

Those people who did not have a book from the library at the time of the interview were asked why this was. About 45% said they were too busy doing other things and the books took so long to read; 16% said that they preferred to read magazines or books of their own; and 16% said that they preferred the Talking Book Machine.

TABLE 15.3
Monthly Reading Rate for Embossed Type Library Books

<i>Reading Rate for Embossed Type Library Books for National Library Members*</i>	National Library Members
	Aged 16-64
	%
None	20
Less than 1 a month	32
1 a month less than 2	22
2 a month less than 3	11
3 a month or more	15
	<u>100</u>
Base	176

*Based on the previous six months' reading.

The distribution of the number of library books read by library members during the previous six months is given above. When this is compared with the number of Talking Books read over the same period (Table 11.4) it can be seen that the rate of reading books in embossed type is much less than the rate for "reading" Talking Books.

16.0 TALKING BOOKS VERSUS BRAILLE AND MOON

The advent of the Talking Book has provided a means of reading books which does not require the learning of a new and difficult alphabet as is the case with Braille and Moon. The system of raised dots which is used for Braille is more flexible than either Moon or Talking Books since it can be written by the individual as well as read and can thus be put to more varied uses. Nevertheless, as the tables which follow show, the Talking Book system competes strongly with Braille and Moon over the areas where one can be considered to be an alternative for the others.

Firstly we consider whether the proportion of people who can read Braille varies according to whether or not the person has a Talking Book Machine. The number of people who read Braille in the age group 65-79 is so small that throughout this section the analysis has been confined to those aged 16-64.

TABLE 16.1
Whether the Blind Person is a Braille Reader by Whether He
Has a Talking Book Machine

<i>Whether the Blind Person is a Braille Reader</i>	Aged 16-64		
	Has a Talking Book Machine	Has not	All
	%	%	%
Never learned Braille	22	37	33
Learned but not good enough to read	29	26	27
Learned and got good enough to read	49	37	40
	100	100	100
Base	252	792	1,044

To date those with Talking Book Machines contain a higher proportion of Braille readers than those without Talking Book Machines. This probably reflects that some people are very eager to read and will use all systems available whereas others may not be so interested in reading. Perhaps the distribution in Table 16.1 will change as the availability of Talking Book Machines increases.

The number of Moon readers is so small that it was not possible to do a similar analysis for Moon on its own.

Of the people aged 16-64 who had Talking Book Machines 55% (139) claimed to have become good enough to read a newspaper or book in one or other of the embossed types. We were interested to know whether these people felt that having a Talking Book Machine had made any difference to the use they made of embossed type.

TABLE 16.2

Whether the Talking Book Affects the Amount of Embossed Type Read

<i>Whether the Talking Book Affects the Amount of Embossed Type Read*</i>	Aged 16-64
	Those Who Have a Talking Book Machine and Read Embossed Type
	%
Talking Book has not affected use of embossed type	55
Use embossed type a little less since had a Talking Book	13
Use embossed type a lot less since had a Talking Book	32
	<hr/> 100
Base	139

*Including Moon.

A little under a half of those who could read embossed type and had a Talking Book Machine said that the amount they read by touch had been affected by having an alternative method to use. We also asked this group which method they would choose if a book they wanted to read was available as a Talking Book and in embossed type.

TABLE 16.3

Preference for Talking Book or Embossed Type

<i>If a Book You Wanted to Read Was Available in Braille, Moon, and as a Talking Book Which Would You Prefer?</i>	Aged 16-64
	Those Who Have a Talking Book Machine and Read Embossed Type
	%
Braille	15
Moon	2
Talking Book	83
	<hr/> 100
Base	139

There was thus an overwhelming preference for the Talking Book.

From the Embossed Type Reading Test we were able to establish the reading speeds of people who read by touch. There were sufficient numbers in the group who completed the contracted Braille test to examine the use made of the Talking Book Machine for people who read contracted Braille at different speeds. Firstly we examine whether the proportion of Contracted Braille readers who have a Talking Book Machine varies with their Braille reading speed.

When examined by the reading speeds the group with the highest proportion of Talking Book users is the slowest Braille reading group, where the proportion is 35%. This suggests that those with the lowest reading speeds for Braille have a greater incentive to acquire a Talking Book Machine.

TABLE 16.4
**Reading Speeds for Contracted Braille Showing Whether the
 Person Has a Talking Book Machine**

<i>Whether the Blind Person Has a Talking Book Machine</i>	Aged 16-64			
	Reading Speed in Words per Minute for Those Who Completed the Contracted Braille Test			
	Less than 60	60-99	100 or more	All who read test
	%	%	%	%
Has never had one	55	71	68	64
Had one, but not now	10	5	6	7
Has one now*	35	24	26	29
	<hr/> 100	<hr/> 100	<hr/> 100	<hr/> 100
Base	115	77	85	277
Proportion of those with Talking Book Machines who had a tape from the Library at the time of interview	90%	72%	95%	88%

*October-December 1965.

For those people who had Talking Book Machines a much higher proportion had a tape from the library at the time of interview than the corresponding figures for Braille library books. With regard to tapes, in the extreme reading speed groups, under 60 words per minute and 100 words a minute or more, a very high proportion of Talking Book users had a tape at the time of interview (90% and 95% respectively).

TABLE 16.5
**Those Who Completed the Contracted Braille Test and Also Had
 a Talking Book, Showing the Effect of Talking Books on Braille Reading**

	Aged 16-64			
	Reading Speed in Words per Minute for Those Who Completed the Contracted Braille Test			
	Less than 60	60-99	100 or more	All who read test
Proportion of those with Talking Book Machines who said that their use of Braille had not been affected by Talking Books	37%	78%	82%	58%
Proportion of those with Talking Book Machines who if a book was avail- able in Braille and as a Talking Book, said they would choose the Talking Book	68%	56%	64%	64%
Base	41	18	22	81

We also examined whether the effect of having a Talking Book on the amount of contracted Braille read varied according to reading speed, and also whether the preference for a book in Braille or as a Talking Book varied according to the speed at which the person could read Braille.

Eighty two percent of those who read Braille at 100 words a minute or more said that the use of a Talking Book had not affected their use of Braille. For those who read at less than 60 words per minute this proportion had dropped to 37%. When asked which they would choose if a book was available in either, 64% said they would choose a Talking Book. This proportion did not vary in the same way with speed of reading. It is of interest to see that such a high proportion of the fastest readers would choose a Talking Book. The data in Table 16.5 suggests that slow readers, having less facility with Braille are more readily affected by the alternative of a Talking Book, whereas faster Braille readers, having less difficulty with using the system as a method of reading, may put their knowledge of Braille to a variety of uses for which a Talking Book is not a perfect substitute. It is of interest, however, that given the situation that a book a person wants to read is available both in Braille and as a Talking Book nearly two thirds of those who read the Contracted Braille test and who also have a Talking Book Machine said they would choose the Talking Book. This proportion did not vary with reading speeds, thus as far as reading books is concerned, given that both Talking Book and Braille versions are available the Talking Book competes with Braille as much with fast readers as with slow readers.

APPENDIX

The Social Survey

READING AND MOBILITY OF THE BLIND—SS.386

QUESTIONNAIRE

Area No.

--	--

(i) Interviewer.....

Serial No.

--	--	--

(ii) Auth. No..... (iv) Date of interview.....

--

(iii) Number of calls

Purpose of the Inquiry

The Ministry of Health has asked the Social Survey to carry out an inquiry among blind people about the difficulties they have with getting about and with reading.

IF NO INTERVIEW OBTAINED WHY NOT?

Name:.....

Address:.....

.....

.....

1. How old were you when you became blind?years

Blind since birth ...

2. Was your loss of sight gradual or sudden?

Gradual ...
Sudden ...

3. How old were you when you first went on to the Register for the Blind?years

4. Do you think your sight has got worse since you were registered as a blind person?

Same ...
Worse ...
Better ...

5. Did you ever go to a school specially for blind or partially sighted children?

Yes ...
No ...

IF AT ALL POSSIBLE ESTABLISH WHETHER THE PERSON GOES OUT, READS BRAILLE (MOON) OR WORKS

Goes out

Reads ...

Works ...

Yes No
1 2

3 4

5 6

6. At what age did you finish full-time education?

14 years or under ...
15 years ...
16 years ...
17 years ...
18 years or over ...

1
2
3
4
5

IF 16 YEARS OR OLDER WHEN BECAME BLIND (Q1)

7. What was your last occupation before you had trouble with your sight? (GIVE OCCUPATION AND INDUSTRY)

8. Would you say you used to read a great deal before you had trouble with your sight?

Great reader ...
PROMPT Moderate reader ...
Didn't read very much

7
8
9

9. Did you ever belong to the local public library then?

Yes ...
No ...

1
2

10. CODE WHETHER BLIND PERSON IS IN A PRIVATE HOUSEHOLD OR IN A RESIDENTIAL HOME

In private household ...

Not in private household ...

1

2

11. OBTAIN HOUSEHOLD COMPOSITION—IF “NOT IN PRIVATE HOUSEHOLD” (Q10 Code 2) TREAT AS SINGLE PERSON HOUSEHOLD AND COMPLETE FIRST LINE ONLY

(a) Relationship to informant	(b) Sex		(c) Age	(d) Marital Status			(e) Paid Job?			OFFICE USE
	M	F		S	M	W	Full Time	Part Time	Not	
A Informant	1	2		4	5	6	1	2	3	(i)
B	1	2		4	5	6	1	2	3	(ii)
C	1	2		4	5	6	1	2	3	(iii)
D	1	2		4	5	6	1	2	3	(iv)
E	1	2		4	5	6	1	2	3	(v)
F	1	2		4	5	6	1	2	3	(vi)

IF “IN PRIVATE HOUSEHOLD”
Q10 Code 1

12. (a) Give letter of HOH ...

(b) Give letter of Housewife ...

(c) Give letter of anyone else registered blind ...

IF WORKING FULL OR PART TIME
Q11(e)
Codes 1 or 2

13. What is your occupation now?
(GIVE OCCUPATION AND INDUSTRY)

.....

.....

.....

14. Do you work at home? Yes ...

No ...

If No (A)

Do you work Special workshop

in a special Not ...

workshop for the blind?

15. Have you always done this sort of work since you were blind?

Yes ...

No ...

(a) If No (5) What other sorts of work have you done?

.....

.....

.....

IF OF WORKING AGE, MEN UNDER 65 AND WOMEN UNDER 60 Q11(c)
BUT NOT WORKING Q11(e)
Code 3

16. Have you ever had a job since you went on the Register for the Blind?
(JOB MEANS PAID EMPLOYMENT)

Yes ...

No ...

IF YES (1)

(i) What was your occupation in your last job?
(GIVE OCCUPATION AND INDUSTRY) (IF ONLY ONE JOB CODE THAT ONE)

.....

.....

.....

(ii) What made you give up this job? (PROBE FULL DETAILS)

.....

.....

.....

(CONT.)

1

2

107

<p>(CONT.)</p> <p>IF OF WORKING AGE, MEN UNDER 65 AND WOMEN UNDER 60, Q11(c) BUT NOT WORKING Q11(e) Code 3</p> <p>17. We are very interested to know about the difficulties people have in finding jobs. Can you tell me if you, yourself, would like to have a paid job?</p> <p>Yes ... 4</p> <p>No ... 5</p> <p>D.K. ... 6</p>		<p>IF 16 YRS. OR OLDER WHEN BECAME BLIND (Q1)</p> <p>Apart from what the Home Teacher does there are some courses to help people who have lost their sight. These courses teach people to read, teach them handicrafts and the safest way to get about without a sighted guide.</p>	
<p>IF YES (4) or D.K. (6)</p> <p>(a) What are your reasons for not being in a job now?</p> <p>Health ... 1</p> <p>Home commitments... 2</p> <p>.....Other (specify) ... 3</p> <p>.....</p> <p>.....</p> <p>.....</p>		<p>18. Have you ever been on a Course like this? Yes ... A</p> <p>No ... 1</p> <p>IF YES (A)</p> <p>(i) Where was this?</p> <p>Oldbury Grange, ... 2</p> <p>Bridgenorth ... 3</p> <p>Torquay ... 3</p> <p>Ceres, Fife ... 4</p> <p>Warwick Row ... 5</p> <p>Other (specify) ... 6</p>	
<p>(b) What occupation (and industry) would you like to be in? (PROBE "D.K." AND "ANY KIND" AND IF POSSIBLE GET SPECIFIC OCCUPATIONS)</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>		<p>(ii) How long had you been on the Blind Register when you went on this Course?</p> <p>.....yearsmonths</p>	
<p>IF NO (5)</p> <p>(c) What are your reasons for not wanting to have a paid job?</p> <p>Health ... 7</p> <p>Home commitments... 8</p> <p>.....Other (specify) ... 9</p> <p>.....</p> <p>.....</p> <p>.....</p>		<p>TO ALL</p> <p>19. Have you ever attended any social or handicraft centre for the blind? Ever ... 1</p> <p>Never ... 0</p> <p>IF EVER (1)</p> <p>(i) How long had you been on the Blind Register when you first went to the centre?</p> <p>.....yearsmonths</p> <p>(ii) Do you go now? Yes ... A</p> <p>No ... 3</p> <p>IF YES (A)</p> <p>(a) How often do you go? Twice a week ... 5</p> <p>Once a week ... 6</p> <p>Once a fortnight ... 7</p> <p>Once a month ... 8</p> <p>.....Other (Specify) ... 9</p> <p>.....</p>	
		<p>20. Have you been on a training course for a job since you were registered as a blind person?</p> <p>Yes ... 4</p> <p>No ... 5</p> <p>(a) Where was this and who provided it?</p> <p>.....</p> <p>.....</p> <p>.....</p>	

<p>For this inquiry we need to get an idea of how much sight people have.</p>			IF CAN SEE MORE THAN LIGHT FROM WINDOWS (Q21 Code O)
21.	<p>If you are in a room in the daytime can you tell, by the light, where the windows are?</p> <p>Yes ...</p> <p>No ...</p>	<p>SIGHT</p> <p>A</p> <p>1 ←</p>	<p>22. Have here a card</p> <p>Can you read the two sentences on it?</p> <p>Would you read out loud for me please?</p> <p>TELL INFORMANTS TO USE ANY SPECTACLES ETC. THEY WOULD NORMALLY USE.</p> <p>(a) VISION AID?</p> <p>No vision aid used ... O</p> <p>Spectacles used ... Y</p> <p>(not dark glasses)</p> <p>Magnifying glass used ... X</p> <p>(or low vision aid)</p> <p>(b) LIGHT CONDITION?</p> <p>Daylight ... 8</p> <p>Artificial light ... 9</p> <p>(c) Sentence 1 (IF YOU)</p> <p>Read correctly ... 1</p> <p>Read part ... 2</p> <p>Not read ... 3</p> <p>(d) Sentence 2 (The Houses.)</p> <p>Read correctly ... 1</p> <p>Read part ... 2</p> <p>Not read ... 3</p> <p>IF READS AT ALL (CODES 1 OR 2)</p> <p>(i) Do you normally read anything in print?</p> <p>Yes ... 7</p> <p>No ... 8</p> <p>IF YES (7)</p> <p>(ii) Do you read</p> <p>Newspaper headlines Yes No</p> <p>Ordinary print 1 2</p> <p>3 4</p> <p>TO ALL.</p> <p>As hearing affects peoples ability to get about can I ask about your hearing?</p> <p>23. Do you use a hearing aid?</p> <p>Yes ... 1</p> <p>No ... 2</p> <p>24. Would you generally rather have people speak to you louder?</p> <p>Yes ... 3</p> <p>No ... 4 ←</p> <p>INTERVIEWER TO NOTE IF PERSON SAYS NO BUT IS CLEARLY HARD OF HEARING</p> <p>HEARING</p> <p>Another thing affecting the amount people can get about is how fit they are.</p> <p>25. Have you any disability, apart from your blindness, which prevents you from getting about?</p> <p>Yes ... A</p> <p>No ... O</p> <p>IF YES (A)</p> <p>(a) What?</p> <p>Arthritis ... 1</p> <p>Diabetes ... 2</p> <p>Other (specify) ... 3</p>
	<p>IF YES (A)</p> <p>(i) Can you see more than that?</p> <p>Yes ... 0</p> <p>No ... 2 ←</p>		
	<p>IF YES (O) (USUALLY, IN DAYLIGHT)</p> <p>(ii) Can you see a lamp post five paces ahead of you?</p> <p>Yes ... 4</p> <p>No ... 3 ←</p>		
	<p>(iii) If you are walking along a pavement which has a grass verge can you see where the the grass begins?</p> <p>Yes ... 6</p> <p>No ... 7</p> <p>Never go out ... X</p> <p>GO TO Q22</p>		
	<p>(iv) If you are standing at the edge of the pavement</p> <p>(a) Could you see a cyclist on the other side of the road?</p> <p>Yes ... 1</p> <p>No ... 2</p> <p>(b) Could you see a car go by on the other side of the road?</p> <p>Yes ... 4</p> <p>No ... 5</p> <p>(c) Could you see a bus go by on the other side of the road?</p> <p>Yes ... 7</p> <p>No ... 8</p>		
	<p>(v) Do you find bright sunshine troublesome when you are finding your way about?</p> <p>Yes ... 2</p> <p>No ... 3</p>		
	<p>(vi) Do you find you are better at getting about in ordinary daylight or are you better at night when it is darker?</p> <p>Better in daylight ... 5</p> <p>Better in dark ... 6</p> <p>No difference ... 7</p>		

<p>26. If you were walking along a pavement with a sighted friend could you walk at a brisk pace?</p> <p style="text-align: right;">Briskly Not ...</p>	<p style="text-align: center;">A 1</p>	<p>28. CODE THE NEXT SECTION FROM THE ANSWERS TO PREVIOUS QUESTIONS</p> <p style="text-align: right;">CODE HERE</p>	
<p>IF BRISKLY (A)</p> <p>(i) For how long at a stretch would you be prepared to walk at a brisk pace ... as much as</p> <p style="text-align: right;">5 mins. ... 15 mins. ... PROMPT 1/2 hr. ... 1 hr. ...</p>	<p style="text-align: center;">2 3 4 ← 5 ← FITNESS</p>	<p><i>Age</i> Q11(c), p2, 64 or less ... A</p> <p><i>Sight</i> Q21, p4, Code 1, 2 or 3 B</p> <p><i>Hearing</i> Q24, p4. Code 4 ... C</p> <p><i>Fitness</i> Q26, p5, Code 4 or 5 D</p> <p><i>Dog</i> Q27, p5, Code 3 ... E</p>	
<p>27. We are interested in which people have Guide Dogs. Have you a Guide Dog?</p> <p style="text-align: right;">Yes ... No ...</p>	<p style="text-align: center;">1 A</p>	<p>IF A-E ALL RINGED</p> <p>29. Have you ever applied to the Guide Dog Association for a dog?</p> <p style="text-align: right;">Yes ... No ...</p>	<p style="text-align: center;">1 2</p>
<p>IF NO (A)</p> <p>(i) Have you ever had a Guide Dog?</p> <p style="text-align: right;">Yes ... No ...</p>	<p style="text-align: center;">2 3 ← DOG</p>	<p>IF YES (1)</p> <p>(a) What happened?</p>	
<p>IF YES (2)</p> <p>(ii) Why haven't you got one now?</p> <p>.....</p> <p>.....</p> <p>.....</p>		<p>.....</p> <p>.....</p> <p>.....</p>	
<p>IF HAS GUIDE DOG (Code 1)</p> <p>(iii) How long have you had a Guide Dog?</p> <p>.....years</p>		<p>IF NO (2)</p> <p>(b) Why haven't you applied?</p> <p>.....</p> <p>.....</p> <p>.....</p>	

30. We are interested in the extent to which people get out and about and the amount of walking they do outside.

I'd like to ask you about any times you've been out in the past week. Firstly could we talk about the times you went out yesterday. Now yesterday was.....

USE A SEPARATE JOURNEY LINE FOR TO WORK AND FROM WORK, AND FOR ANY OTHER OUTING WHICH NATURALLY SPLITS INTO TWO

CODE YESTERDAY

Mon.	1
Tues.	2
Wed.	3
Thurs.	4
Fri.	5
Sat.	6
Sun.	7

CODE NUMBER OF JOURNEYS EACH DAY

NONE	IN	WEEK	X
------	----	------	---

Mon.	
Tues.	
Wed.	
Thurs.	
Fr.	
Sat.	
Sun.	

OFFICE USE

(d)	(e)
-----	-----

Y	
X	
0	
1	
2	
3	

START WITH YESTERDAY AND WORK BACKWARDS THROUGH A WEEK

JOURNEY	DAY OF WEEK	What was the main purpose of the journey?		Same as Journey (b)					(c)					(d)	(e)	(f)	NOTES			
		Work	Shopping	Visiting	a Walk	Other purpose (specify)	How much time was spent actually travelling?					Was it all on foot or did it involve some form of transport. If so, was this a special service for the blind?					How much of the time was on foot? (nearest five mins.)	IF ANY ON FOOT How much was on foot and without a sighted person with you? (nearest five mins.)	During this time (f) about how many roads did you cross?	
							All foot	Car Taxi	Bus Coach	Train Tube	Special Service									
1		Y	X	0	1		0	1	2	3	X									
2		Y	X	0	1		0	1	2	3	X									
3		Y	X	0	1		0	1	2	3	X									
4		Y	X	0	1		0	1	2	3	X									
5		Y	X	0	1		0	1	2	3	X									
6		Y	X	0	1		0	1	2	3	X									
7		Y	X	0	1		0	1	2	3	X									
8		Y	X	0	1		0	1	2	3	X									
9		Y	X	0	1		0	1	2	3	X									
10		Y	X	0	1		0	1	2	3	X									
11		Y	X	0	1		0	1	2	3	X									
12		Y	X	0	1		0	1	2	3	X									
13		Y	X	0	1		0	1	2	3	X									
14		Y	X	0	1		0	1	2	3	X									
15		Y	X	0	1		0	1	2	3	X									
16		Y	X	0	1		0	1	2	3	X									

IF ANOTHER PAGE USED RING X

TO ALL			(CONT.)		
31. We have just been talking about the journeys you did last week. Would you say that on the whole last week was a normal week for you?	Yes ... No ...	4 A	38. We are interested to know how much people bump into things they can't see. Would you say you bump into things	very frequently fairly frequently hardly ever ...	1 2 3
IF NO (A)			39. If you are walking along a pavement without a sighted guide and you bump into someone how difficult do you generally find it to set out again in the right direction. Would you say it was	very difficult ... fairly difficult ... fairly easy ...	5 6 7
(a) Was last weeks travelling more or less than you normally do?					
Last week more than normal		5			
Last week less than normal		6			
32. Would you say that your blindness limits the amount you get about	very much ... to some extent ... or very little ...	1 2 3	PROMPT		
33. From the point of view of traffic what sort of neighbourhood is this. is it	very busy ... fairly busy ... or not very busy...	5 6 7	PROMPT		
IF NONE DONE ON FOOT UNGUIDED DURING WEEK (Q30(e) p6)			40. Would you say it was generally more difficult to set out in the right direction again after bumping into a ladder or bumping into a person or is there no difference?	More difficult if ladder More difficult if person No difference....	1 2 3
34. Do you ever travel on foot without a sighted guide?	Yes ... Never ...	1 2 GO TO Q46	IF 1 or 2 Why.....		
IF EVER TRAVELS ON FOOT UNGUIDED					
(ALL EXCEPT "NEVER" CODE 2 Q34 ASK Q35-Q45)			41. Would you find it easier to travel to work when everyone else is travelling or would it be easier when there are fewer people about?	With everyone else ... With fewer people ... No difference ...	6 7 8
35. Do you ever cross roads with traffic unguided?	Yes ... No ...	5 6			
36. Do you find that going along a route you know is more tiring on your own than with a sighted guide? Would you say that on your own it is	(GENERALLY) a lot more tiring PROMPT a bit more tiring no more tiring (than with a sighted guide)	1 2 3	42. Have any of your routes been made more difficult by road or building works in the last three months?	Yes ... No ...	9 0
37. If it were important to you would you be prepared to go to a place half a mile from here along a route you don't already know without a sighted guide?	Yes, unqualified ... Yes, qualified (specify) ... No ...	4 5 6	43. During the last three months have you added to the routes you know, either by completely new routes or new parts added on to old routes?	New routes ... New parts ... None ...	1 2 3
(CONT.)			(CONT.)		

(CONT.)		
44.	Walking without a sighted guide is often made more difficult by such things as	1
	<div style="text-align: right;">NUMBER</div> A lot of people on the pavement 1 High Wind 2 A lot of traffic noise 3 Deep snow on the ground ... 4	
	NOTE THAT THE ORDER VARIES	
	<div style="text-align: right;">CODE NUMBER</div> (i) Which of these would cause you most difficulty?	
	(ii) After that, which of these (REPEAT THE THREE NOT CHOSEN) would cause you most difficulty?	
	(iii) Of the two that are left (REPEAT THE TWO NOT ALREADY CHOSEN) which one would cause you most difficulty? ...	
	(iv) CODE REMAINING NUMBER HERE	
45.	When you are travelling without a sighted guide do you always use a stick?	
	Always ... 1 Sometimes ... 2 Never ... 3	
	IF SOMETIMES (2) or NEVER (3)	
	(a) Why not (always)?	
	Opposed to sticks ... 6 Short familiar journeys 7 Got a Guide Dog ... 8 Other (specify) ... 9	
	TO ALL	
46.	Has anyone ever taught you how to use a stick for getting about?	
	Yes ... A No ... 1	
	IF YES (A)	
	(a) Who (Where)?	
	Home Teacher ... 2 Oldbury Grange, ... Bridgnorth ... 3 Torquay ... 4 Other (specify) ... 5	
47.	We are interested in the sort of sticks that blind people are using. Have you a stick or cane that you use for getting about? May I see it?	
	No stick used (GO TO Q51) 0 IGNORE One stick used ... 1 SPARE Two, collapsible + rigid ... 2 STICKS Two, both rigid ... 3 Two, both collapsible ... 4	
	IF MORE THAN ONE STICK USED	
	(a) How do you decide which stick to use?	
	(b) Which do you use most? (MAIN STICK)	
	MAIN STICK	
48.	OBSERVE AND MEASURE	
	COLOUR White ... 1	
	Non-white ... 2	
	MATERIAL Wood ... 4	
	Metal ... 5	
	RIGIDITY Collapsible ... 7	
	Rigid ... 8	
	TIP Rubber ... 1	
	Not ... 2	
	HEIGHT 33 ins ... 3	
	36 ins ... 6	
	(nearest inch)	
	DIAMETER 6-8 ... 1	
	at mid- 9-11 ... 2	
	length 12-14 ... 3	
	(sixteenth of inch)	
	TO ALL WHO USE STICKS	
49.	Do you think your stick is about the right length or it is too long or too short for you?	
	Right length ... 1 Too long ... 2 Too short ... 3	
50.	(i) We are interested in the ways people use their sticks. Which of these three ways is most important to you? Is your stick of most importance to you	
	as a support ... 1 to detect obstacles ... 2 or to let people know so that they can help ... 3	
	(ii) Which is the next most important way	
	CODE REMAINING WAY →	
	TO ALL	
51.	Would you mind standing up so that I can measure the distance from your elbow to the ground. This distance is useful for those who make sticks.	
	Nearest inch	

			(CONT.)			
52.	Do you ever go out on foot? Yes ... Never ...	1 2	56.	(a) When you are walking along the pavement and you come to a road you have to cross can you see the edge of the kerb? Yes ... No ...	1 4	
		GO TO Q58				
53.	IF EVER TRAVELS ON FOOT (ALL EXCEPT "NEVER" Q52 Code 2) ASK Q53-Q57 We are interested in how you know what is around you. When you are walking along the pavement and you pass a parked lorry with the engine off have you enough sight to see it? Yes ... No ...	1 A	57.	(b) Would you feel it with your stick? Yes ... No ...	7 8	
54.	(a) When you are walking along a pavement that has lamp posts have you enough sight to see them? Yes ... No ...	2 3	58.	TO ALL If you had the opportunity to go on a course where you would learn to get about better, would you be prepared to go (i) for as long as a month? Yes ... No ...	A 0	
55.	(b) Would you feel them with your stick? Yes ... No ...	1 A		IF YES (A) (ii) for as long as three months? Yes ... No ...	3 1	
	(a) When you are walking along a pavement and there is a pram in your way, have you enough sight to see it? Yes ... No ...	2 3				
	(b) Would you feel it with your stick? Yes ... No ...	7 8				
(CONT.)						

59. Can we now talk about reading. Have you ever had any lessons in reading Braille?	Yes ... No ...	1 2	62. TO THOSE WHO GOT GOOD ENOUGH TO READ A BRAILLE NEWSPAPER OR BOOK (Q61 Code 3) Do you take the Radio Times in Braille?	Yes ... No ...	5 6
IF YES (1) (a) (i) Who gave you the lessons?			63. Do you take any of the Braille magazines or newspapers that are published?	Yes ... No ...	A 00
School ...	3		IF YES (A) (a) Which ones?		
Home Teacher ...	4		Weekly News Summary (free)		01
Olbury Grange, Bridgenorth ...	5		National Braille Mail ...		02
Torquay ...	6		Braille Digest ...		03
St. Dunstons ...	7		New Beacon (in Braille) ...		04
Other (specify) ...	8		Portland Magazine ...		05
.....			Progress ...		06
(ii) Over what period of time did you have regular les- sons?			Tape Record ...		07
Up to 3 months ...	4		Home Help ...		08
Over 3 to 6 months ...	5		Other (specify) ...		09
Over 6 to 12 months...	6			
Over 1 year ...	7		IF NO (00) (b) Why not?		
IF NO (2) (b) Why haven't you tried to learn Braille?				
.....			64. Can you write Braille?	Yes ... No ...	1 2
IF HAD LESSONS (Code 1) OR SELF-TAUGHT			IF YES ((1) (a) Can you use a hand frame?	Yes ... No ...	4 5
60. How soon after you were regist- ered did you start to learn?			(b) Can you use a machine?	Yes ... No ...	7 8
Up to 6 months ...	1		IF EMPLOYED (page 2 Q11(e) Code 1 or 2)		
Over 6 months to 1 year	2		(a) Do you read Braille in the course of your work?		
Over 1 year up to 5 years ...	3		(MORE THAN READING Reads Braille...		1
Over 5 years ...	4		TOOLS AND Does not ...		2
61. Did you get good enough to read and understand a Braille news- paper or book?			MEASUREMENTS)		
Yes ...	3	BRAILLE READER	(b) Do you write Braille at work?		
No ...	4		(OTHER THAN Writes Braille		4
IF YES (3) (a) About how long did it take to get that far?			BRAILLE Does not ...		5
Up to 3 months ...	1		SHORTHAND)		
Over 3 to 6 months ...	2		65. These two pages in Braille have different kinds of dots, which kind of dots do you prefer?		
Over 6 to 12 months...	3		THE INFORMANT		
Over 1 year ...	4		SHOULD Prefers embossed (1)		1
			FEEL Prefers solid dot (2)		2
			THE No difference ...		3
			TWO PAGES		
			IF PREFERENCE (Code 1 or 2) (i) Why?		
				

<p>73. If you had the opportunity to go away on a course where you would learn a completely new way of reading newspapers and books would you be prepared to go (a) for as long as a month?</p> <p>Yes ... No ...</p> <p>IF YES (A) (b) for as long as three months?</p> <p>Yes ... No ...</p> <p>(IF ASKED WHAT SORT OF NEW METHOD SAY SCIENTISTS ARE WORKING ON NEW WAYS NOW)</p>	<p>A 3</p> <p>4 5</p>	<p>TO THOSE WHO HAVE EVER BEEN ABLE TO READ A NEWSPAPER OR BOOK IN BRAILLE OR MOON (Q61, p.10, Code 3 or Q69, p.11, Code 3)</p> <p>77. Have you ever belonged to the National Library for the Blind?</p> <p>Yes ... No ...</p> <p>IF YES (1) (i) Are you a member now?</p> <p>Member ... Not ...</p> <p>IF NO (4) (a) Why not?</p> <p>.....</p> <p>.....</p> <p>.....</p>	<p>1 2</p> <p>3 4</p>
<p>74. Does a sighted person read the newspaper to you</p> <p>PROMPT every day ... sometimes ... never ...</p>	<p>1 2 3</p>	<p>.....</p> <p>.....</p> <p>.....</p>	
<p>75. Does a sighted person read magazines to you</p> <p>regularly ... sometimes ... never ..</p>	<p>5 6 7</p>	<p>IF MEMBER (3) (ii) Do you get books in Braille or Moon?</p> <p>Braille... Moon ...</p>	<p>4 5</p>
<p>76. Does a sighted person ever read books to you?</p> <p>Yes ... No ...</p> <p>IF YES (8) (a) About how many books have been read to you in the last six months?</p> <p>.....</p>	<p>8 9</p>	<p>(iii) Have you got any books now?</p> <p>Yes ... No ...</p> <p>IF NO (8) (a) Why haven't you got any at the moment?</p> <p>.....</p> <p>.....</p> <p>.....</p>	<p>7 8</p>
		<p>.....</p> <p>.....</p> <p>.....</p> <p>IF YES (7) (b) How many <i>volumes</i> have you at the moment? ...</p> <p>NOTE: A BOOK USUALLY RUNS TO SEVERAL VOLUMES</p> <p>(iv) About how many library <i>books</i> have you read in the last six months? ...</p> <p>(a) How many of them were fiction?</p> <p>Fiction ...</p> <p>Non-fiction ...</p>	<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>

<p>Could we go on to talking book machines now</p> <p>78. Have you ever had a talking book machine?</p>		<p>(d) IF NEVER HAD MACHINE (Code 1)</p> <p>(i) Have you ever made enquiries about getting one?</p>	
<p>Yes ...</p> <p>No ...</p>	<p>A</p> <p>1 GO</p> <p>TO (d)</p>	<p>Yes ...</p> <p>No ...</p>	<p>1</p> <p>2</p>
<p>IF YES (A)</p>		<p>IF YES (1)</p>	
<p>(a) Have you got a talking book machine now?</p>		<p>(ii) What happened?</p> <p>On waiting list</p> <p>Other (specify)</p>	<p>4</p> <p>5</p>
<p>Yes ...</p> <p>No ...</p>	<p>2</p> <p>3</p>		
<p>IF NO (3)</p>			
<p>(b) Why haven't you got one now?</p>			
<p>.....</p>			
<p>(c) IF YES (2)</p>		<p>IF NO (2)</p>	
<p>(i) How long have you had one?</p>		<p>(iii) Have you ever heard of Talking Book Machines before?</p>	
<p>Up to 6 months ...</p>	<p>4</p>	<p>Yes ...</p>	<p>8</p>
<p>Over 6 to 12 months...</p>	<p>5</p>	<p>No ...</p>	<p>9</p>
<p>Over 1 year to 2 years</p>	<p>6</p>		
<p>Over 2 years ...</p>	<p>7</p>		
<p>(ii) Have you got a talking book now?</p>		<p>TO ALL WHO ARE NOT ON THE WAITING LIST AND WHO HAVE NEVER HAD A TALKING BOOK MACHINE</p>	
<p>Yes ...</p>	<p>8</p>	<p>79. Do you think you will apply for a talking book machine?</p>	
<p>No ...</p>	<p>9</p>	<p>Yes ...</p>	<p>1</p>
<p>(iii) About how many books have you had in the last six months? ...</p>	<p>.....</p>	<p>No ...</p>	<p>2</p>
<p>IF HAD MACHINE LESS THAN SIX MONTHS GIVE NUMBER AND PERIOD</p>		<p>IF NO (2)</p>	
<p>.....</p>		<p>(i) Why not?</p>	
<p>IF BRAILLE OR MOON READER (Q61 Code 3 or Q69 Code 3)</p>			
<p>(iv) Since having a talking book machine do you think it has affected the amount you use Braille (Moon)?</p>			
<p>No affected ...</p>	<p>O</p>		
<p>Affected ...</p>	<p>A</p>		
<p>(a) IF AFFECTED (A)</p>			
<p>Do you use Braille (Moon) a little less or a lot less?</p>			
<p>A little less ...</p>	<p>2</p>		
<p>A lot less ...</p>	<p>3</p>		
<p>(v) If a book you wanted to read was available in Braille, in Moon and as a talking book which would you prefer?</p>			
<p>Braille... ..</p>	<p>7</p>		
<p>Moon</p>	<p>8</p>		
<p>Talking Book...</p>	<p>9</p>		

READING TEST

80. (a) CODE FROM PREVIOUS

QUESTIONS

BRaille READER

(Page 10 Q61 Code 3) ...

MOON READER

(Page 11 Q69 Code 3) ...

BOTH BRaille AND MOON

READER

NEITHER (NO TEST REQUIRED)

IF BOTH BRaille AND

MOON READER (Code 3)

(i) Which would you say you are better at, Braille or Moon?

TEST THE Braille...

BETTER ONE Moon ...

(b) IF BRaille TO BE TESTED (Code 1 or 4)

(ii) Do you read contracted Braille?

YES (GIVE CONTRACTED

BRaille TEST)

NO (GIVE UNCONTRACTED

BRaille TEST)

CONTRACTED = GRADE 2

UNCONTRACTED = GRADE 1

(c) IF MOON TO BE TESTED (Code 2 or 5)

GIVE MOON TEST ...

MAKE SURE THAT INFORMANT IS IN A COMFORTABLE POSITION FOR READING.

81. I have a book here with some Braille (Moon) in it and we would like to get some idea of how long people take to read a passage of Braille (Moon). Would you read this passage to yourself but would you read the title out loud so that I know when you start. So that I know when you finish would you read the words "The End" out loud when you come to them. (THE INFORMANT MAY, HOWEVER CHOOSE TO READ IT ALL OUT LOUD BUT YOU SHOULD NOT SUGGEST THIS). There are two pages but you don't have to turn over.

WHEN THE FIRST WORD "THURSDAY" IS READ ALOUD START THE STOPWATCH. WHEN "THE END" IS READ STOP THE WATCH.

(a) WHETHER TEST

STARTED Started Y

IF NOT (X) Not ... X

(i) Why not?

(b) WHETHER ALOUD

Informant read to self

Informant read aloud

(c) HOW MANY HANDS IS THE INFORMANT USING TO READ BRaille (MOON)?

One hand moving ...

Two hands moving

together

Two hands moving,

scissor motion ...

(d) TIME TAKEN.....mins

.....secs.

(i) IF ABANDONED, GIVE TIME, LINE REACHED AND REASON.

IF PASSAGE FINISHED

82. I would like to ask you some questions about what you have read. You can look the answers up if you want to.

QUESTIONS NOT ATTEMPTED ... X

YOU SHOULD REPEAT THE QUESTIONS AS OFTEN AS NECESSARY

DID NOT LOOK UP ANSWER	DID LOOK UP ANSWER
------------------------------	--------------------------

PROMPT IF CODE 3
(I'm not sure if that's right)
would you like to look it up?

(a) Which old friend was met, what was his name?

Alec

.....Other (specify)

AND PROMPT

.....Other (specify)

(b) In what colours was the kitchen decorated?

Blue and yellow

.....Other (specify)

AND PROMPT

.....Other (specify)

(c) What reason did the wife give for being glad to move from the old cottage?

Noise

.....Other (specify)

AND PROMPT

.....Other (specify)

(d) What had the husband brought with him from the garden of the old cottage?

Shed

.....Other (specify)

AND PROMPT

.....Other (specify)

TOTAL
CODES 1 IN
(a)-(d)

(e) SCORE

TOTAL
CODE 1 OR 2

C. 4

[illegible]

